MAINTENANCE MANAGEMENT SYSTEM
Performance Standards
Maintenance Division

Reprinted 2014

West Virginia Department of Transportation
Division of Highways

Earl Ray Tomblin
Governor

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Secretary of Transportation
Commissioner of Highways

FOREWORD

This manual contains the Maintenance Performance Standards. Performance Standards are guidelines for performing the various maintenance activities. Their purpose is to provide a basis for assignment of resources to an activity in order to increase productivity and decrease costs. In short, the Maintenance Performance Standards are intended to provide a tool to managers to assist in increasing efficiency and to insure cost effective maintenance work.

All maintenance personnel whether managers or non-managers involved in planning, scheduling, reporting or controlling maintenance tasks must uniformly understand and become familiar with the manual. The Maintenance Performance Standards are utilized by Central Office managers for budgeting and controlling purposes. District management utilizes the Performance Standards for planning and controlling. Supervisors and Maintenance crew leaders will find the Performance Standards most beneficial in scheduling and controlling their maintenance tasks.

Gregory L. Bailey, P. E.
Acting State Highway Engineer

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PERFORMANCE STANDARDS

TABLE OF CONTENTS

INTRODUCTION

The Maintenance Performance Standards provide the following important information for each maintenance task:

1. The purpose and objective of the task.
2. The proper time and the frequency for performing maintenance tasks.
3. Ideal crew size, types of equipment and types of material required.
4. Daily accomplishments that should be achieved.
5. Work methods setting forth the most economical and systematic procedures for performing the task.
6. Technical references and pertinent notes relating to each task.

PERFORMANCE STANDARD GROUPS

I. Bituminous Pavement Maintenance

II. PCC Pavement Maintenance

III. Unpaved Surface Maintenance

IV. Drainage Maintenance

V. Roadside Maintenance

VI. Snow Removal and Ice Control

VII. Traffic Services

VIII. Bridge

IX. Other Maintenance

X. Service Function

PERFORMANCE STANDARDS

ACTIVITY	DESCRIPTION	UNIT OF MEASURE
Group I	Bituminous Pavement Maintenance	
201	Patching of Bituminous Pavements	megagrams (Tons)
202	Repair of Base Failure	megagrams (Tons)
203	Skip Patching	megagrams (Tons)
204	Sealing & Surface Treatment	megagrams (Tons)
205	Tack Coat	Liters (Gallons)
206	Purchase Order Contract Paving	Dollars
207	Hand Patching & Sealing with Asphalt & Aggregate	megagrams (Tons)
208	Joint & Crack Sealing in Flexible Pavements	meters (Feet)
209	Temporary Patch -- Cold Mix	megagrams (Tons)
Group II	PCC Pavement Maintenance	
241	Patching PCC Pavements	Sq. meters (Sq. Feet)
244	Joint & Crack Sealing in PCC Pavements	meters (Feet)
245	Surface Repair of PCC Pavements	Sq. meters (Sq. Feet)
246	Patching PCC Pavements with Premix	megagrams (Tons)

ACTIVITY	DESCRIPTION	UNIT OF MEASURE
Group III	*Unpaved* Surface Maintenance	
260	Stabilization -- Shoulders	megagrams (Tons)
261	Stabilization -- Roadway	megagrams (Tons)
262	Ditching and Blading -- Unpaved Roadway	kilometers (Miles)
263	Blading -- Unpaved Roadway	kilometers (Miles)
Group IV	Drainage Maintenance	
281	Minor Drainage Structures	Employee Hours
282	Install Pipe Culverts	meters (Feet)
283	Subsurface Drains	meters (Feet)
284	Dumped Rock Ditches	megagrams (Tons)
285	Riprapping of Embankments	megagrams (Tons
286	Installation and Maintenance of Non-Bridge Structures	Employee Hours
287	Removing Ditchline Obstacles	meters (Feet)
288	Pulling Shoulders or Ditches-- Paved Roadway	kilometers (Miles)
289	Dressing Shoulders Under Guardrail	Feet
Group V	Roadside Maintenance	
301	Guardrail Maintenance	meters (Feet)
302	Repair/Replace Rights of Way Fence	meters (Feet)
303	Mowing – Non Expressway	hectares (Acres)
304	Brush Control -- Hand	Employee Hours

ACTIVITY	DESCRIPTION	UNIT OF MEASURE
Group V	Roadside Maintenance (Continued)	
305	Brush Control -- Machine	hectares (Acres)
306	Wildflowers	hectares (Acres)
307	Herbicide Spraying	hectares (Acres)
308	Litter Pickup & Disposal	Bags
309	Rest Area Maintenance	Employee Hours
310	Dead Animal - N*ot Deer* - Pickup/Removal	Employee Hours
312	Litter Disposal/Support (Non-DOH Forces)	Employee Hours
313	Contract/Hired Maintenance	Dollars
314	Supervision -- Work Release Program	Employee Hours
316	Hand Mowing/Trimming	Employee Hours
317	Mowing - Expressway (Interstate/APD)	hectares (Acres)
Group VI	Snow Removal and Ice Control	
341	Mechanical Application of SRIC Materials	megagrams (Tons)
342	Snow Plowing and Blowing	Employee Hours
343	Snow Fence	meters (Feet)
344	Post Storm Cleanup	Employee Hours
345	SRIC Support Operations	Employee Hours

ACTIVITY	DESCRIPTION	UNIT OF MEASURE
Group VII	Traffic Services	
361	Coding and Spotting	kilometers (Miles)
363	Pavement Markings	Employee Hours
364	Sign Installation/Maintenance	Employee Hours
365	Illumination Devices and Signals	Employee Hours
366	Impact Attenuators	Each
368	Roadway Striping (Yellow)	kilometers (Miles)
369	Roadway Striping (White)	kilometers (Miles)
Group VIII	Bridge	
381	Bridge Repair, Maintenance and Construction	Employee Hours
382	Bridge Inspection and Analysis	Employee Hours
383	Bridge Design	Employee Hours
384	Cleaning and Painting	Employee Hours
385	Repair and Realigment of Bearing Devices	Employee Hours
386	Repair/Replacement of Expansion Dam Seals	Employee Hours
387	Sealing of Concrete Bridge Decks	Employee Hours
388	Sealing of Bridge Concrete Substructure Units	Employee Hours
389	Bridge Washing	Employee Hours
390	Opening of Bridge Drainage Systems	Employee Hours
391	Scour/Erosion and Riprapping at Bridges	Employee Hours

ACTIVITY	DESCRIPTION	UNIT OF MEASURE
Group IX	Other Maintenance	
401	Rotomilling	Sq. meters (Sq. Yards)
402	Sweeping	Employee Hours
403	Tunnel Maintenance	Employee Hours
404	Emergency Services	Employee Hours
405	Steel Piling Installation	meters (Feet)
406	Unclassified Excavation	megagrams (Tons)
407	Non-Annual Plan Employee Hours	Employee Hours
408	Miscellaneous Maintenance	Employee Hours
409	Placing PCC	meters (Yards)
410	Erosion/Pollution Control	Employee Hours
411	Hauling Materials - Premix and Stone	kilometers (Miles)
Group X	Service Function	
801	Organization Overhead	Employee Hours
803	Leave Time	Employee Hours
807	Grievance -- Maintenance Work Force	Employee Hours
809	Training	Employee Hours
811	Unproductive Equipment	Dollars
812	Rents and Miscellaneous Expenses	Dollars
813	Flagging	Employee Hours
814	Handling of Materials (Non-SRIC)	Employee Hours

ACTIVITY	DESCRIPTION	UNIT OF MEASURE
Group X	Service Function (Continued)	
815	Cleaning of Equipment	Employee Hours
816	Building and Grounds	Employee Hours

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 201

PERFORMANCE STANDARDS

ACTIVITY NAME: **PATCHING OF BITUMINOUS PAVEMENTS**

DESCRIPTION & PURPOSE:

Repair of bituminous pavements, shoulders and approaches with premix to correct potholes, edge failures, upheavals, settlements, cracking, raveling and base failures to prevent further deterioration, eliminate safety hazards, improve riding quality and restore proper drainage; to include the repair and construction of asphalt paved gutters to provide adequate drainage and erosion control.

PERFORMANCE CRITERIA:

All permanent repairs require the area to be cut-out and should be scheduled and performed as soon as possible when weather conditions permit. The type of maintenance performed will be dictated by the condition of pavement, shoulder and approaches. When hot-mix is used, air temperature should be above 40° F and surface dry. Refer to Activity 209, Temporary Patch – Premix, when area to be patched is not cut-out.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	5
TOTAL:	6

FLAGGERS NOT INCLUDED

EQUIPMENT

040/041	Sweeper	(Opt.)	1
203	Crew Cab Pickup		1
253	Tilt Trailer	(Opt.)	1
370/371	Dump Truck		1
410/412	Hyd. Excavator	(Opt.)	1
502	Asphalt Storage Trailer.	(Opt.)	1
512	Distributor	(Opt.)	1
503/546	LeeBoy, Layton Box Paver	(Opt.)	1
591/592	Roller		1
351	Skid Steer Loader	(Opt.)	1
612	Compressor	(Opt.)	1
	Pavement Breaker	N/C	1

MATERIALS

Perforated Pipe
Premix
Bituminous Material
Base Aggregate
Fine Aggregate
Filter Fabric
Sand

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Tons*	8.0 - 13.0	4.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE:
1) Chapter 08, WVDOH Maintenance Manual
2) WVDOH Standard Specifications Roads and Bridges Current Edition.

POTHOLE REPAIR

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Square potholes with hand tools, pavement breakers, and/or skid steer loader.
3) Remove and load material while awaiting premix.
4) Clean and sweep potholes or other areas.
5) Make sure area is dry.
6) Apply tack coat.
7) Place premix in layers not to exceed 1 1/2 inch compacted.
8) Place top layer 1/4 inch above existing surface to allow for compaction.
9) Compact with roller.
10) Remove traffic control devices.

MAINTENANCE AND REPAIR OF BITUMINOUS SHOULDERS AND APPROACHES

TECHNICAL REFERENCE: Chapter 06, WVDOH Maintenance Manual

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Mark areas to be repaired with keel or paint.
3) Use hand tools, pavement breakers, and/or skid steer loader to cut-out repair areas as necessary. Remove materials and clean and sweep area to remove debris. Make sure area is dry.

BASE REPAIR

A) Use excavator, backhoe, or skid steer loader to remove all unsuitable base material.
B) If necessary, cut trench for subsurface drain from base to outside of shoulder.
C) Place aggregate in trench drain, around perforated pipe, or in filter fabric.
D) Backfill with suitable material and compact.
E) Place premix in repair area in layers not to exceed 1 1/2 inch compacted.
F) Roll and compact surface to proper template. Allow top layer to be 1/4 inch above surface for compaction.
G) Remove and properly dispose of waste material.

GENERAL NOTES:

- All field personnel are working crew members.
- Hand tools to include rakes, brooms, shovels, lutes, hand tampers, multi purpose saw, etc.
- Number of trucks and operators required will vary depending on haul distance.
- Number of personnel will depend on type of repairs being performed.

REPORTING NOTES:

- Report flaggers under Activity Code 813.
- Organizations having excessive (one hour or more) haul distance from the material supplier should utilize Activity 411 -- Hauling Materials - Premix and Stone.

PLANNING NOTES:

- 0.5 feet of perforated pipe per ton of premix programmed (base repair).
- 2 tons of base aggregate per ton of premix programmed (base repair).

RECOMMENDED BY: W. Kyle Stallings DATE 6/23/08

APPROVED BY: John S. Will DATE 6/23/08

FORM OM-30

ACTIVITY NO. 202

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **REPAIR OF BASE FAILURE**

DESCRIPTION & PURPOSE:

Repair of base to firm foundation with aggregate and subsurface drainage to prevent further deterioration of surface, seal water from base, provide structural strength and restore roadway to proper grade.

PERFORMANCE CRITERIA:

Perform this activity when pavement displacement due to settlement, upheaval or edge failure is 76 mm (3 in.) or more. This activity is to be performed only when the base temperature is above 4°C (40°F) and dry. Construct subsurface drains where base failures are caused by moisture in base or subgrade.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	5
TOTAL:	6

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup		1
253	Tilt Trailer		1
350	Loader w/Backhoe		1
371	Dump Trucks		2
400/401	Grader		1
410/412	Hyd. Excavator	(Opt.)	1
591	Roller	(Opt.)	1
597	Vibratory Roller	(Opt.)	1
612	Compressor		1
	Pavement Breaker	N/C	1
	Backfill Tamper	N/C	1

MATERIALS

Perforated Pipe
Premix*
Fine Aggregate
Base Aggregate

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams*	5.0 - 7.5	7.27
	Tons*	5.5 - 8.0	6.60

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: —— PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE:
1) *Chapter 08, WVDOH Maintenance Manual*
2) *WVDOH Standard Specifications Roads and Bridges, Current Edition.*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Mark areas to be repaired. [The outline is to be square or rectangular and 300 mm (12 in.) outside of perimeter or distressed area.]

3) Using hand tools or air hammer, cut out the surface and unsuitable base. [If possible, keep base cut approximately 152 mm (6 in.) inside the surface cut.]

4) Cut trench for subsurface drain from base through shoulder to ditchline. (Use backhoe if required.)

5) Load and properly dispose of excavated material while awaiting arrival of premix.

6) Construct subsurface drain, if necessary.

7) Backfill excavated area with suitable material and compact. (Stone, slag, gravel, or HLBC base course.)

8) Place HLBC surface course; roll to compact.

9) Remove traffic control devices.

GENERAL NOTES:

- All field personnel are working crew members.
- Number of trucks and operators may vary depending on haul distance.
- Hand tools to include rakes, lutes, shovels, brooms, hand tampers, multi purpose saw, etc.
- Lift thickness is dependent upon the depth of the failure and the amount of unsuitable material. Replacement thickness shall not be less than the existing thickness.
- Extreme failures may require the use of a different class aggregate for base or sub-base.
- 152 mm (0.5 linear feet) of perforated pipe per megagram (ton) of premix programmed.
- 2 megagrams (tons) of base aggregate per megagram (ton) of premix programmed.

REPORTING NOTES:

- Report flaggers under Activity Code 813.

- Organizations having excessive (one hour or more) haul distances from the material supplier should utilize Activity 411 -- Hauling Materials - Premix and Stone.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 203

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SKIP PATCHING**

DESCRIPTION & PURPOSE:

Skip patching with premix using a grader, tow paver or Lee Boy maintainer, to correct settlements, upheaval or raveling, to seal out water, and add structural strength to existing facility, to bring paved shoulders back to grade of adjacent pavement where dropoff is more than 25 mm (1in.), and improve riding quality and eliminate safety hazards.

PERFORMANCE CRITERIA:

Perform this activity where pavement distress is general and due to settlement, upheaval, edge failure or surface failure. Also perform to regain an acceptable riding quality.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	6
TOTAL:	7

FLAGGERS NOT INCLUDED

EQUIPMENT

040/041	Sweeper	1
203	Crew Cab Pickup	1
371	Dump Truck	1
400/401	Grader	1
503	Lee Boy Maintainer	1
546	Paver	1
591	Roller	1

MATERIALS

Premix*
Bituminous Material
(Lee Boy only)

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams*	57 - 83	0.74
	Tons*	63 - 92	0.67

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Mark area to be repaired. The outline should be rectangular and outside the perimeter of the distressed area.
3) Clean and sweep area.
4) Apply bituminous tack coat.
5) Apply hot-laid bituminous concrete to a thickness that will achieve proper compaction; not to exceed 38 mm (1 1/2 in.) maximum thickness.
6) Compact to provide a smooth dense surface.
7) Remove traffic control devices.

LEE BOY

1) Mill to square failed area to provide edge support.
2) Remove loose material.
3) Apply tack coat.
4) Place bituminous material.
5) Roll.
6) Allow top coat to be 6 mm (1/4 in.) above surface. Minimum depth for a patch is 25 mm (1in.).

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include lutes, shovels, brooms, hand tampers, etc.
-- Patching of bituminous pavements, rotomilling, and applying tack coat is recommended to be performed prior to performance of this activity.
-- This activity is to be performed on bituminous pavements not scheduled for a complete overlay. Thickness of the overlay is dependent upon the condition of the existing surface and the type material.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- Organizations having excessive (one hour or more) haul distance from the material supplier, should utilize Activity 411 -- Hauling Materials - Premix and Stone.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph F. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 204

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SEALING AND SURFACE TREATMENT**

DESCRIPTION & PURPOSE:

Application of one or more courses of bituminous material and graded aggregate upon existing bituminous surfaces, adequately based and drained roads, shoulders and approaches to provide a smoother surface, seal out water, restore existing pavement and eliminate potential safety hazards.

PERFORMANCE CRITERIA:

Schedule surface treatments for warm dry seasons. Patching bituminous pavements, repair of base failures, spot stabilization, ditching and blading to be performed as necessary prior to this activity. Work is to be performed as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	11
TOTAL:	12

FLAGGERS NOT INCLUDED

EQUIPMENT

040/041	Sweeper		1
203	Crew Cab Pickup		1
253	Tilt Trailer		1
353/357	Endloader	(Opt.)	1
371	Dump Trucks		3
512	Distributor		1
552	Stone Spreader		1
599	Roller		1

MATERIALS

Bituminous Material
Fine Aggregate*

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams*	79 - 116	0.91
	TONS*	87 - 128	0.83

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
			-----							-----	

LEGEND: POSSIBLE PERFORMANCE ----- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

LIGHT SEAL

A) Clean and sweep.

B) Apply 570 ml to 760 ml (0.15 gal. to 0.20 gal.) bituminous material per square meter (square yard).

C) Spread immediately 4 kg to 5 kg (8 lbs. to 10 lbs.) per square meter (square yard) No. 8 aggregate.

D) Roll immediately.

SINGLE SURFACE TREATMENT

A) Clean and sweep.

B) Apply 760 ml to 1100 ml (0.2 gal. to 0.3 gal.) bituminous material per square meter (square yard).

C) Spread immediately 5 kg - 9 kg (10 - 20 lbs.) per square meter (square yard) No. 8 aggregate.

D) Roll immediately.

DOUBLE SURFACE TREATMENT

A) Clean and sweep.

B) Apply 950 ml to 1300 ml (0.25 gal. to 0.35 gal.) bituminous material per square meter (square yard).

C) Spread immediately 11 kg (25 lbs.) per square meter (square yard) No. 7 aggregate.

D) Roll immediately.

E) Apply 560 ml to 950 ml (0.20 gal. to 0.25 gal.) per square meter (square yard) bituminous material.

F) Spread immediately 5 kg to 7 kg (10 lbs. to 15 lbs.) per square meter (square yard) No. 8 aggregate.

G) Roll immediately.

WORK METHODS: (Continued)

SAND SEAL

A) Clean and sweep.

B) Apply 640 ml to 950 ml (0.17 to 0.25 gal.) asphalt emulsion per square meter (square yard).

C) Follow immediately with squeegee. Squeegee operation may be performed manually or by attaching squeegee to a tractor with three point hitch. Squeegee should be full width of area being sealed.

D) Apply 7 kg (16 lbs.) per square meter (square yard) of coarse sand.

E) Follow with chain-link fence attached to pickup truck or tractor for even spreading.

F) Lightly roll.

G) Sweep center joint in direction of completed work before proceeding to opposite side.

2) Remove traffic control devices.

TECHNICAL REFERENCE: *Asphalt Institute, "Asphalt Surface Treatment", Manual Series 13 Chapter 07, WVDOH Maintenance Manual*

UNPAVED

FOLLOWING STEPS FOR DOUBLE SURFACE TREATMENT: Approximately 18 kg (40 lbs.) per square meter (square yard); 7 kg (15 lbs.) per square meter (square yard) first treatment and 11 kg (25 lbs.) per square meter (square yard) second treatment.

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Apply prime coat.

3) Spread No. 8 aggregate on roadway being treated, where traffic must use.

4) Apply bituminous material in accordance with mix design.

5) Spread immediately No. 7 or No. 8 aggregate in accordance with mix design.

6) Roll.

7) Apply bituminous material in accordance with mix design.

8) Spread immediately No. 8 aggregate in accordance with mix design.

9) Compact.

10) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- Number of trucks and operators will vary depending on haul distance.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Organizations having excessive (one hour or more) haul distances from the material supplier, should utilize Activity 411 -- Hauling Materials - Premix and Stone.

PLANNING NOTES:

-- 76 L (20 gal.) of bituminous material per megagram (ton) of aggregate.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Jasper T. Desmarais DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **205**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **TACK COAT**

DESCRIPTION & PURPOSE:

Applying bituminous material as a tack coat or prime coat to paving operations to provide a bond between the overlay and existing surface.

PERFORMANCE CRITERIA:

Perform in conjunction with Skip Paving or Premix Paving by Purchase Order Contract.

CREW SIZE

Trans. Workers	2

EQUIPMENT

202/204	Pickup Truck	1
512	Distributor	1

FLAGGERS NOT INCLUDED

MATERIALS

Bituminous Material

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	**liters**	**908 - 1332**	**0.01**
	Gallons	**240 - 352**	**0.05**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
			---							---------	

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE:
1) *Section 408 and 409, WVDOH Standard Specifications for Roads and Bridges*
2) *Chapter 08, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) If skip paving, apply bituminous material between premarked pavement sections.
3) If paving continuously, apply tack as directed by Assistant District Engineer, Maintenance.
4) Apply bituminous material at rate specified by Assistant District Engineer, Maintenance.
5) If necessary, leave traffic control devices for paving operations.

GENERAL NOTES:

-- All field personnel are working crew members.
-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95
APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **206**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **PURCHASE ORDER CONTRACT PAVING**

DESCRIPTION & PURPOSE:

Premix paving by a contractor utilizing a Purchase Order Contract.

PERFORMANCE CRITERIA:

Perform at the direction of the Assistant District Engineer, Maintenance.

CREW SIZE

Construction Inspector	1

EQUIPMENT

200	Pickup Truck, Compact	1

FLAGGERS NOT INCLUDED

MATERIALS

Premix
Bituminous Material

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Dollars		

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
		-----	----------							----	

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Apply tack coat as directed by the Assistant District Engineer, Maintenance (may be either State Forces or Contract).

3) Place premix as directed by the Assistant District Engineer, Maintenance.

4) Remove traffic control devices.

GENERAL NOTES:

-- Ditching, blading, and pipe replacement are recommended to be performed prior to this activity.

-- Shoulder placement recommended to be performed after this activity.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Paving by POC will be reported under this activity only when being charged to routine maintenance. Use other appropriate activities when work is done as a part of a renovation or improvement project.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dennardt DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 207

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **HAND PATCHING & SEALING WITH ASPHALT & AGGREGATE**

DESCRIPTION & PURPOSE:

The repair and correction of deep, usually rounded holes in bituminous pavement where the surface has broken and kicked out causing riding discomfort and safety hazard. The repair and sealing of cracks in bituminous pavements to prevent surface water from penetrating and causing subsequent damage.

PERFORMANCE CRITERIA:

Perform under warm dry conditions when possible. If operation is performed when cold or damp, the area must be cleaned and dried.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	8
TOTAL:	9

EQUIPMENT

203	Crew Cab Pickup		1
371	Dump Trucks		2
512	Distributor		1
591	Roller		1
612	Compressor	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Bituminous Material
Fine Aggregate*

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams*	21 - 31	2.57
	Tons*	23 - 34	2.33

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Clean and sweep area to be repaired. If necessary, use air compressor to clean and dry.

3) Apply heated bituminous material.

4) Spread aggregate uniformly over bituminous material, raking and brooming as necessary.

5) Compact to obtain a smooth surface.

6) Repeat Steps 4 and 5, if necessary, to restore original roadway cross-section.

7) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- Number of trucks and operators required will be determined by haul distance.

-- If two or more applications are necessary, final application of stone should be AASHTO #8 or #9.

-- The rate of application of bituminous material and aggregate shall be determined by the Assistant District Engineer, Maintenance.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **JOINT AND CRACK SEALING IN FLEXIBLE PAVEMENTS**

DESCRIPTION & PURPOSE:

Cleaning and sealing open cracks and joints in flexible pavements and paved shoulder surfaces, to prevent the entry of moisture and debris which leads to surface and base failure; thus extending pavement and roadway life. Sealing also retards reflective cracking through overlays and extends the life of the overlay.

PERFORMANCE CRITERIA:

Perform under cool and dry conditions when possible. For cracks 6 mm (1/4 in.) or more in width, use a fine sand mix or fine aggregate to maintain a reasonable ride ability. Cracks 6 mm (1/4 in.) wide or less may be coated with bituminous material, giving side protection against raveling. This activity can be performed in snow and ice season when the pavement is dry. Cleaning of cracks is critical. Joint filler material may be required.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	7
TOTAL:	8

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup		1
371	Dump Trucks		2
512	Distributor		1
521	Asphalt Kettle	(Opt.)	1
591	Roller		1
612	Compressor		1

MATERIALS

Bituminous Material
Fine Aggregate
Joint Filler Material
Sand, General Type

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Feet	4500 – 6600	0.01

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■■■■

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Clean and sweep area to be sealed. Complete cleaning of cracks and joints as necessary by blowing out the cracks and joints with compressed air. Install joint filler material as required.

3) Apply heated bituminous material (temperature according to specifications).

4) Spread sand or fine aggregate as required or needed.

5) If aggregate is used, spread evenly and uniformly and roll as necessary to obtain a smooth surface.

6) Remove traffic control device.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, squeegee, etc.

-- Asphalt kettle and/or distributor are interchangeable.

-- Number of trucks and operators required will be determined by haul distance.

-- The rate of bituminous material (application) will be determined by the Assistant District Engineer, Maintenance.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: W Kyle Stallings DATE 8/31/11

APPROVED BY: _____ DATE 9-1-11

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 209

PERFORMANCE STANDARDS

ACTIVITY NAME: **TEMPORARY PATCH – PREMIX**

DESCRIPTION & PURPOSE:

Temporary patching of paved surfaces with cold mix or hot mix to eliminate potential safety hazards and to prevent further surface deterioration. Performed when weather conditions prohibit cutting out area to be repaired and performing permanent patching.

PERFORMANCE CRITERIA:

Generally performed during the winter months when hot mix is not available, but may be performed as an emergency temporary patch.

CREW SIZE

Trans. Workers	3

FLAGGERS NOT INCLUDED

EQUIPMENT

353	Endloader	(Opt.) 1
370/371	Dump Truck	1
591, 597	Roller	(Opt.) 1

MATERIALS

Premix

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Tons	2.3 - 3.3	8.00

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC
■	■	—	———	———	———	———	———	———	———	—	■

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Hand clean pothole or other area to remove as much loose pavement and debris as possible. Remove excess water if there is any present.

3) Place premix by shoveling, do not drop or dump into place.

4) Compact premix with hand tools, vibrating roller, or roller.

5) Remove traffic control devices.

GENERAL NOTES:

- All field personnel are working crew members.
- Hand tools to include rakes, shovels, brooms, hand tamper, etc.
- The supervisor shall designate a member of the crew as leadperson to be in charge.

REPORTING NOTES:

- Report flaggers under Activity Code 813.

RECOMMENDED BY: W. Kyle Stollings DATE 6/23/08

APPROVED BY: Joel S. Walker DATE 6/23/08

FORM OM-30

ACTIVITY NO. 241

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **PATCHING PCC PAVEMENTS**

DESCRIPTION & PURPOSE:

Repair of Portland Cement Concrete Pavement with concrete (site mixed or transit mixed) to correct failed areas, unstable base conditions, pumping action or structurally damaged concrete will be reported under this activity. Additional structural strength, improved riding quality and improved safety will result.

PERFORMANCE CRITERIA:

Performance of this activity is best during the period from late spring to early fall, however, this operation can be performed during the entire year if proper curing procedures are used. The ideal temperature for this operation is from 10°C to 29°C (50°F to 85°F). Seal joints using Activity 244 -- "Joint and Crack Sealing in PCC Pavement". Perform only during hours of 7:00 p.m. - 6:00 a.m. at locations where lane closure will result in an unacceptable disruption of traffic flow.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	10
TOTAL:	11

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck		1
203	Crew Cab Pickup		1
253	Tilt Trailer		1
350	Loader w/Backhoe		2*
371	Dump Trucks		3
584	Concrete Saw		1
612	Compressor		1
705	Water Tank	N/C	1
	Vibrator	N/C	1
	Jack Hammer	N/C	1
	Electric Power Plant	N/C	1
	Flood Light Proj.	(Opt.)	1

**(See General Notes)*

MATERIALS

Base Aggregate
Transit Mix Concrete
Portland Cement
Cement Additives
Expansion Joint Material

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:		
sq. meters	4 - 6	15.8
Sq. Feet	45 - 66	1.5

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*
Section 601, WVDOH Standard Specifications for Roads and Bridges

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Work area to be repaired, sides of joint to be parallel to and at right angles to centerline. (Select type of repair below and proceed to "A" under appropriate heading.)

BASE AND JOINT REPAIR

a) Saw cut designated at joint area to a minimum of 178 mm (7in.) deep by making two saw passes on each joint to attain depth. Saw cutting is critical in order to prevent spalling on the underside of existing concrete.

b) Break concrete within area and excavate. Depth of removal shall be 152 mm (6 in.) minimum below existing concrete and shall include any soft subgrade material. All deteriorated concrete shall be removed. If less than a 178 mm (7 in.) sawed face results, resaw a new joint.

c) Install reinforcing steel as indicated on the diagram.

d) Pour concrete.

e) Texture surface transverse to roadway using a stiff bristle floor broom.

f) Make 6 mm (1/4 in.) tooled joint 13 mm to 19 mm (1/2 in. to 3/4 in.) in depth and allow concrete to cure.

g) After concrete has cured and before opening area to traffic, fill joints with paraplastic joint sealer.

SPALLED AREAS AND JOINT BLOW-UP

a) Saw cut marked area to necessary depth.

b) Remove deteriorated concrete.

c) Clean dowels, tie bars or other reinforcing steel, or replace as necessary.

d) Place expansion joint material.

e) Pour concrete and finish.

f) Allow concrete to cure.

3) Load and remove cut out waste material.

4) Remove traffic control devices.

GENERAL NOTES:

- All field personnel are working crew members.
- Hand tools to include shovels, floor brooms, concrete tools, etc.
- Use curing compound when temperatures are expected to remain above freezing. Use straw or insulation bats between plastic when sub-freezing temperatures are expected.
- The curing period is dependent on dryness of pour and curing agent being used.
- * It may be necessary to rent private sector pavement breaker w/drop hammer or hoeram mounted on endloader. Use of the hoeram may require a Class 616 Compressor.

REPORTING NOTES:

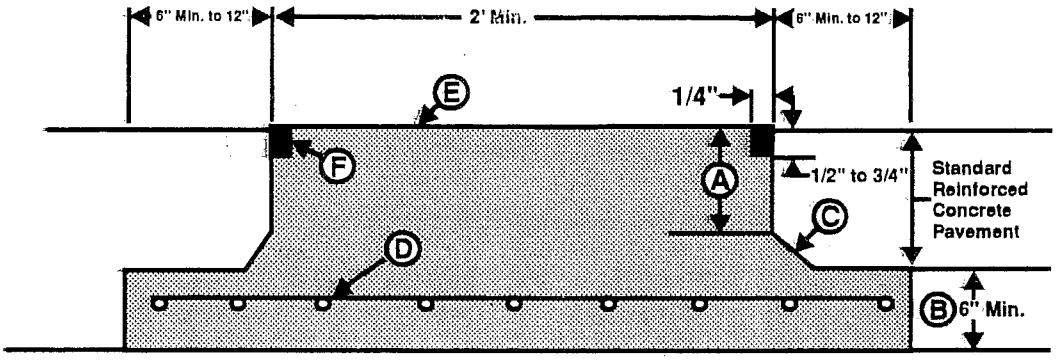
- Report flaggers under Activity Code 813.

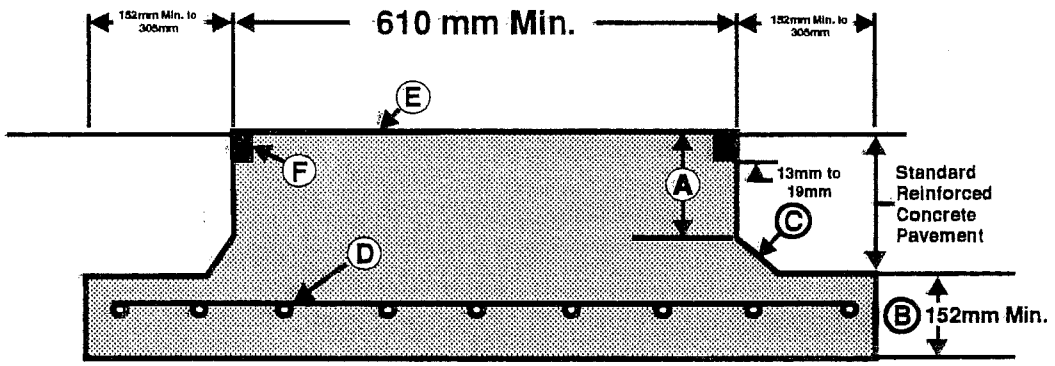
PLANNING NOTES:

- 0.76 m^3 (1 yd^3) of concrete per 2.8 m^2 (30 ft^2).
- 1 bag of cement per each 0.55 m^2 (6 ft^2).
- 91 kg (200 lbs.) of sand per 0.55 m^2 (6 ft^2) of planned quantity.
- 136 kg (300 lbs.) of aggregate per 0.55 m^2 (6 ft^2) of planned quantity.

WORK METHODS

Typical Joint Repair
for stone base or deteriorated cement treated base





A) Saw cut joint to a minimum of 178 mm (7 in.) deep.
B) Depth of removal of stone base or deteriorated cement treated base shall be 152 mm (6 in.) minimum. Remove any soft subgrade material.
C) All deteriorated concrete shall be removed.
D) Install 152 mm x 152 mm x 10 gauge (6 in. x 6 in. x 10 gauge) reinforcing wire.
E) After concrete has set sufficiently, texture surface transverse to roadway with a stiff bristle floor broom.
F) Make 6 mm (1/4 in.) wide tooled joint 13 mm to 19 mm (1/2 in to 3/4 in.) deep and fill with paraplastic joint sealer after concrete has cured and before opening to traffic.
G) Install No. 5 reinforcing steel on 300 mm (12 in.) spacing each direction.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30 | West Virginia Division of Highways Maintenance Division | ACTIVITY NO. 244

PERFORMANCE STANDARDS

ACTIVITY NAME: **JOINT AND CRACK SEALING IN PCC PAVEMENTS**

DESCRIPTION & PURPOSE:

Cleaning and sealing joints and/or cracks in PCC paved surfaces to prevent pavement surface water and debris from penetrating and causing base and pavement failures, spall and joint blow-up during hot weather.

PERFORMANCE CRITERIA:

Perform when joint openings and cracks are 6 mm (1/4 in.) wide or larger and when air temperature is below 10° C (50° F). Top of seal should be level with pavement surface.

CREW SIZE

Trans. Workers	4

EQUIPMENT

203	Crew Cab Pickup		1
371	Dump Truck		1
521	Asphalt Kettle		1
612	Compressor		1
	Joint Router	N/C	1

FLAGGERS NOT INCLUDED

MATERIALS

Hemp Rope (Backer Rod)
Joint Filler

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Feet	1125 - 1650	0.02

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: 1) Chapter 08, Section 06.07 WVDOH Maintenance Manual
2) Section 503, WVDOH Standard Specifications for Roads and Bridges, Current Edition

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Clean joints and cracks with router.

3) Complete cleaning of joints and cracks by blowing out the joints/cracks with compressed air.

4) Install hemp rope or backer rod material as necessary.

5) Pour the hot joint filler material in the prepared areas.

6) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, squeeze board, brooms, etc.

-- The supervisor shall designate a member of the crew as leadperson to be in charge.

-- When pavement conditions are damp or wet, the bituminous material should be an emulsified type.

-- Use hemp rope or backer rod to stabilize flow into joint or crack as necessary.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: W Kyle Stobbs DATE 8/31/2011

APPROVED BY: _____ DATE 9-1-11

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SURFACE REPAIR OF PCC PAVEMENTS**

DESCRIPTION & PURPOSE:

Repair of Portland Cement Concrete Pavement with concrete or epoxy materials to eliminate surface failures, seal out water, prevent further deterioration and eliminate potential safety hazards.

PERFORMANCE CRITERIA:

Performance of the activity is best during the period from late spring to early fall, however, this operation can be performed during the entire year if proper curing procedures are used. The ideal temperature for this operation is 10°C to 29°C (50°F to 85°F) .

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup			1
371	Dump Truck			1
580	Concrete Mixer	N/C	(Opt.)	1
584	Concrete Saw			1
612	Compressor			1
705	Water Tank	N/C		1
	Pavement Breaker	N/C		1

MATERIALS

Cement
Cement Additive
Sand
Epoxy

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	sq. meters	4 - 6	7.18
	Sq. Feet	45 - 66	0.67

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*
Section 601, WVDOH Standard Specifications for Roads and Bridges

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Mark work area to be repaired, sides of joints to be parallel to and at right angles to centerline.
3) Saw cut marked areas to necessary depth, 25 mm to 38 mm (1 in. to 1 1/2 in.)
4) Remove deteriorated concrete.
5) Clean old surface, dowels, tie bars or other reinforcing.
6) Brush grout onto concrete surface.
7) Pour concrete, patch mortar or epoxy mix and finish.
8) Allow concrete or material to cure.
9) Load and remove cut out waste material.
10) Remove traffic control devices, etc.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include shovels, floor broom, concrete tools, etc.
-- Curing time is dependent upon dryness of pour and curing agent being used, as well as type of product being used. In case of epoxy or other special products, follow manufacturer's specifications.
-- All transverse joints shall match those in the existing concrete.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

PLANNING NOTES:

-- 0.76 m^3 (1.0 yd^3) of concrete per 2.8 m^2 (30 ft^2) of repair area.
-- 1.0 bag of cement per each 0.56 m^2 (6 ft^2) of planned quantity.
-- 91 kg (200 lbs.) sand per 0.56 m^2 (6 ft^2) of planned quantity.
-- Epoxy or concrete substitute follow manufacturer's instructions.
-- Grout: A mixture of one part cement and one part sand to be used as a bond.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **246**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **PATCHING PCC PAVEMENTS WITH PREMIX**

DESCRIPTION & PURPOSE:

Manual patching of Portland Cement Concrete Pavement with premix to repair potholes, correct minor settlements or upheavals, to prevent further deterioration and eliminate safety hazards.

PERFORMANCE CRITERIA:

To be scheduled and performed on small deteriorated sections of concrete when a permanent patch is not feasible or timely. Cold mix may be used when hot mix is not available or whenever weather conditions are not suitable for hot mix. Minimum depth of removal shall be 76 mm (3 in.).

CREW SIZE

Trans. Workers	5

EQUIPMENT

203	Crew Cab Pickup		1
371	Dump Truck		1
502	Asphalt Storage Trlr.	(Opt.)	1
584	Concrete Saw		1
591	Roller		1
612	Compressor		1
	Pavement Breaker	N/C	1
	Backfill Tamper	N/C	1

FLAGGERS NOT INCLUDED

MATERIALS

Premix*

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams*	4.5 - 6.5	6.7
	Tons*	5.0 - 7.5	6.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 08, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Mark work areas to be repaired, sides of joints to be parallel to and at right angles to centerline.

3) Saw cut marked areas to necessary depth, minimum of 76 mm (3 in.).

4) Remove deteriorated concrete.

5) Clean areas to be repaired.

6) Make sure area is dry.

7) Apply tack coat.

8) Place premix in layers not to exceed one and one-half inches compacted.

9) Place top layer 6 mm (1/4 in.) above existing surface to allow for compaction.

10) Compact with roller or compaction device.

11) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, hand tampers, etc.

-- Supervisor shall designate a member of the crew as a leadperson to be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Ducault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **260**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **STABILIZATION - SHOULDERS**

DESCRIPTION & PURPOSE:

The application of aggregate to sections of shoulders to restore original section, stabilize soft and rutted shoulder conditions and provide stabilization to recently widened shoulders and approaches.

PERFORMANCE CRITERIA:

To be performed as needed, preferably under damp conditions; otherwise add water to aggregate. Review the conditions to determine if further softening can be prevented by subsurface drainage.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	8
TOTAL:	9

FLAGGERS NOT INCLUDED

EQUIPMENT

040/041	Sweeper	(Opt.)	1
202/204	Pickup Truck		1
353/357	Endloader		1
371	Dump Trucks		4
400/401	Grader		1
503	Lee Boy Maintainer	(Opt.)	1
599	Roller		1
705	Water Tank N/C	(Opt.)	1

MATERIALS

Aggregate or
Native Material

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams	108 - 159	0.50
	Tons	119 - 175	0.45

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 06, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Scarify existing area to be stabilized.

3) Add aggregate.

4) Add water, if necessary.

5) Blade and mix.

6) Grade and shape to proper cross-section and compact.

7) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- Shoulder grade is defined as a slope of 63 mm drop per meter (3/4 in. drop per foot) for stabilized shoulders and 83 mm drop per meter (1 in. drop per foot) for unstabilized shoulders from edge of pavement.

-- Number of trucks and operators will vary depending on haul distance.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/6/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 261

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **STABILIZATION - ROADWAY**

DESCRIPTION & PURPOSE:

The scarifying and application of aggregate to sections of roadway to restore original cross section, eliminate soft or rutted conditions, or provide stabilization to recently widened roadways.

The addition of stone to truck escape ramps is to be reported to this activity also.

PERFORMANCE CRITERIA:

Work should be accomplished on a year-round basis to correct deficient surfaces as they are discovered. Investigate roadway drainage conditions to determine if further grade softening can be prevented by restoring proper drainage prior to performing this activity.

Truck Escape Ramps: Work is to be performed at the direction of the Assistant District Engineer, Maintenance, any time of the year or as quickly as possible after need is determined. Level existing stone and add additional stone as needed (hand work only).

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck			1
353/357	Endloader			1
371	Dump Truck			1
400/401	Grader			1
591	Roller			1
705	Water Tank	(Opt.)	N/C	1
	Water Pump	(Opt.)	N/C	1

MATERIALS

Aggregate/Gravel
Native Material

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams	54 - 80	0.55
	Tons	60 - 88	0.50

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 07, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Scarify existing surface.

3) Add aggregate and apply water, if necessary.

4) Blade mix.

5) Shape to proper cross-section and crown in accordance with specifications; crown section to be sloped 63 mm per meter (3/4 in. per foot) of width.

6) Compact.

7) Remove traffic control devices.

TRUCK ESCAPE RAMPS

1) Shovel stone from surrounding area into stone area.

2) Add additional #56 or #57 uncrushed river gravel as necessary.

3) Refer to construction plans in order to maintain original depth of stone.

4) Level stone area by hand raking from top to bottom.

5) Do not compact.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include rakes, shovels, brooms, etc.
-- On short sections of roadway which have been recently widened, relocated, or otherwise disturbed; stabilization should be performed as soon as possible.
-- Work is best performed under damp conditions, otherwise, water should be added.
-- Number of trucks and operators will vary depending on haul distance.
-- Handwork will be required in redressing truck escape ramps.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- Truck escape ramp maintenance may be done under a reimbursable authorization.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 262

PERFORMANCE STANDARDS

ACTIVITY NAME: DITCHING & BLADING - UNPAVED ROADWAY

DESCRIPTION & PURPOSE:

The ditching on an unpaved roadway to provide a ditchline of sufficient depth and consistent grade to carry and remove surface runoff water quickly and effectively. To prevent undesirable material from infiltrating the roadway surface, blading of the roadway surface (if required) will be performed first.

Scarifying the roadway to a depth of the deepest pothole may be necessary to prevent premature rutting or wash boarding of the roadway surface.

WHEN BLADING ONLY, USE ACTIVITY 263

PERFORMANCE CRITERIA:

This activity to be performed as needed. The removal of slides, rock falls, trees, sluffage and other major obstacles to be reported as Activity 287 -- Removing Ditchline Obstacles.

CREW SIZE

Trans. Workers	4

FLAGGERS NOT INCLUDED

EQUIPMENT

253	Tilt Trailer	(Opt.)	1
353/357	Endloader	(Opt.)	1
371	Dump Truck		2
400/401	Grader		1
410/412	Hyd. Excavator	(Opt.)	1
350/352	Backhoe	(Opt)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Road Mile	**3.0 – 4.0**	**8.8**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: Chapters 04 and 07, WVDOH Maintenance Manual

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Blade cut ditchline on first pass approximately 200 feet. Material of good quality can be spread over roadway. Material of bad quality will be windrowed on a second pass and picked up with endloader and removed.

3) Ditch slopes and flow lines should retain a 4:1 or flatter slope.

4) Spread excess material of good quality over roadway.

5) Laborer to throw-out rocks and clean pipes.

6) Remove traffic control devices.

GENERAL NOTES:

- All field personnel are working crew members.
- Hand tools to include rakes, shovels, brooms, etc.
- The supervisor shall designate a member of the crew as leadperson to be in charge.
- For Core Maintenance Plan reporting purposes, if roadway is inspected but no ditching is necessary, indicate "not needed" on Core Maintenance Plan Report.

REPORTING NOTES:

- Report flaggers under Activity Code 813.
- Report erosion/pollution control measures as Activity 410 – Erosion/Pollution Control.

RECOMMENDED BY: W. Kyle Stollings DATE 6/23/08

APPROVED BY: [signature] DATE 6/23/08

FORM OM-30 West Virginia Division of Highways Maintenance Division ACTIVITY NO. **263**

PERFORMANCE STANDARDS

ACTIVITY NAME: **BLADING – UNPAVED ROADWAY**

DESCRIPTION & PURPOSE

The blading of an unpaved roadway to cut down high places, fill ruts and to distribute existing roadway material to form a smooth and well drained surface.

Scarifying the roadway to a depth of the deepest pothole may be necessary to prevent premature rutting or wash boarding of the roadway surface.

PERFORMANCE CRITERIA

This activity to be scheduled twice a year, each spring and each fall.

CREW SIZE		EQUIPMENT			
Trans. Workers	2	202/204	Pickup Truck	(Opt.)	1
		400/401	Grader		1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT		
UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Mile	3.8 – 5.5	3.2

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *1) Chapter 07, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Blade both lanes of roadway to center to form crown section. Crown section to be sloped 3/4 in. per foot of width.
3) Spread excess material over roadway.
4) Laborer to throw out rocks, clean pipes and ditches.
5) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- The supervisor will designate a member of the crew as leadperson to be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: W Kyle Stollings DATE 12/13/11

APPROVED BY: _____ DATE 12/14/11

FORM OM-30

ACTIVITY NO. 281

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **MINOR DRAINAGE STRUCTURES**

DESCRIPTION & PURPOSE:

Inspecting and cleaning of open drainage channels, culverts, gutters, inlets, manholes, catch basins, outlets for free-draining base and edge drains, pipe structures, and bridge type structures and boxes with span length of less than 6 m (20 ft.), to check structural integrity, remove obstructions and restore proper drainage. This activity should be used when machine cleaning culverts.

PERFORMANCE CRITERIA:

Perform in accordance with Maintenance Manual instructions and policy statements or when blockage or improper drainage condition occurs. Inspections of the above will be performed a minimum of once yearly with the exception of pipe structures larger than 60" diameter and bridge type structures and boxes less than 6 m (20 ft.) span length which will be inspected once every five years. Cleaning and repair will be performed as necessary.

CREW SIZE

Trans. Workers	4

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck		(Opt.)	1
203	Crew Cab Pickup			1
253	Tilt Trailer		(Opt.)	1
303	Track Loader		(Opt.)	1
350	Loader w/Backhoe		(Opt.)	1
353/357	Endloader		(Opt.)	1
371	Dump Truck		(Opt.)	1
410/412	Hyd. Excavator		(Opt.)	1
705	Water Tank	N/C	(Opt.)	1
813	Culvert Cleaner		(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: —— PERFORMANCE:

(Revised 11/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 4, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Remove obstructions to drainage flow.

3) Remove waste material and dispose in approved location.

4) Inspect for structural damage and schedule repairs if required.

5) Remove traffic control devices.

GENERAL NOTES:

- During inspection only, to insure most effective use of man power, crew can be split into 2 units utilizing optional pickup.
- During inspection only, if inspection reveals repair or other work is required to restore structural integrity and/or proper functioning, a note will be made on the Form DOH 12 and a report made to the supervisor.
- All field personnel are working crew members.
- The supervisor will designate a member of the crew as leadperson who will be in charge.
- Prior to performing this activity in stream channels, written permission must be obtained from appropriate state and federal agencies.
- Construction easement must be obtained from affected property owners. Drainage easements should be checked.

REPORTING NOTES:

- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 11/17/95

APPROVED BY: Joseph F. Demarest DATE 11/17/95

FORM OM-30

ACTIVITY NO. 282

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **INSTALL PIPE CULVERTS**

DESCRIPTION & PURPOSE:

The installation of pipe culverts for the purpose of maintaining adequate roadway drainage, replacing deficient minor bridges and providing temporary bypasses for new construction.

PERFORMANCE CRITERIA:

This activity shall be performed when it is necessary to install a new pipe, replace a deteriorated pipe, or substitute a larger pipe. This activity should be performed in periods of low flow, but could be done any time if necessary.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup			1
253	Tilt Trailer		(Opt.)	1
350	Loader w/Backhoe		(Opt.)	1
371	Dump Truck			1
410/412	Hyd. Excavator		(Opt.)	1
612	Compressor		(Opt.)	1
	Pavement Breaker	N/C	(Opt.)	1
	Mechanical Tampr	N/C		1

MATERIALS

Culvert Pipe
Fine Aggregate

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	meters	11 - 17	2.67
	Feet	37 - 54	0.82

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 4, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Stake out pipe.

3) Set batter boards.

4) Excavate the trench to approximate grade.

5) Fine grade the bottom of the trench using a template to fit the curve of the pipe.

6) Where rock is encountered, it must be removed below the pipe grade and replaced with a bed of granular material.

7) Lay pipe starting at outlet end and proceed toward inlet end.

8) After each section of pipe is laid, the joint must be mortared (if concrete pipe) or banded (if metal pipe).

9) Backfill the trench with suitable material free of rocks, lumps, or stumps, in 152 mm (6 in.) lifts, with care taken to compact each lift. When installing culvert pipe 1.07 m (42 in.) or greater, backfill shall be granular material as noted in the latest Special Provisions.

10) Restore roadway and shoulders to original condition and grade.

11) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- Install sufficient length pipe to provide for shoulder and side slope.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Smeault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 283

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SUBSURFACE DRAINS**

DESCRIPTION & PURPOSE:

Installation of subsurface drains for the elimination of subsurface water and prevention of damage to base and/or pavement. Drains can be constructed of aggregate (french), fabric and aggregate, or perforated pipe (usually corrugated metal, asphalt coated or plain) and aggregate.

PERFORMANCE CRITERIA:

Work will normally be performed in the spring and fall seasons when subsurface water is easiest to detect; however, work should be performed at the earliest notice of subsurface water so as to prevent major pavement and shoulder damage.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup		1
253	Tilt Trailer		1
350	Loader w/Backhoe		1
371	Dump Truck		1
410/412	Hyd. Excavator	(Opt.)	1
612	Compressor		1
975	2 m (7 Ft.) Rotary Saw	(Opt.)	1
	Mechanical Tamper N/C		1

MATERIALS

Perforated Pipe
Premix
Fine Aggregate
Filter Fabric

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	meters	17 - 25	1.74
	Feet	57 - 83	0.53

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ---- PERFORMANCE

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 4, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Mark trench to be excavated.
3) Excavate trench to required depth.

PIPE DRAIN

A) Place aggregate bedding 152 mm (6 in.) minimum depth.
B) Install perforated pipe, perforations down; pipe should usually be corrugated polyethylene or corrugated metal.
C) Place aggregate backfill to provide 152 mm (6 in.) minimum blanket on both sides and top.
D) Backfill trench with suitable material and compact.

FABRIC DRAIN

A) Place fabric.
B) Place aggregate into fabric, use free draining aggregate.
C) Overlap and close fabric to cover aggregate.
D) Backfill trench with suitable material and compact.

4) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include mattocks, shovels, brooms, etc.
-- 2 m (7 ft.) rotary saw can be obtained from the Central Heavy Maintenance Detachment.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

PLANNING NOTES:

-- .91 Mg (1 Ton) aggregate (free draining) per 6 m (20 ft.) of drain / pipe.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Lineault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 284

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **DUMPED ROCK DITCHES**

DESCRIPTION & PURPOSE:

Correction of open flow-ways for surface drainage by placing dumped rock to fill eroded ditches which are too low for proper drainage and constitute a traffic hazard.

PERFORMANCE CRITERIA:

The eroding ditch shall be considered to be too deep whenever the bottom of the ditch is more than 300 mm (1 ft.) below the elevation of the outside edge of the shoulder, unless the depth is necessary to achieve proper flow in the ditch. The dumped rock should be placed to a depth sufficient to obtain a continuous layer of material.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	5
TOTAL:	6

EQUIPMENT

202/204	Pickup Truck		1
253	Tilt Trailer		1
303	Track Loader	(Opt.)	1
350	Loader w/Backhoe		1
371	Dump Truck		1
410/412	Hyd. Excavator	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Stone

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams	34.0 - 50.0	1.06
	Tons	37.5 - 55.0	0.96

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ——— PERFORMANCE:

(Revised 11/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 4, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Dump and/or mechanically place rock in the ditch to approximate line and grade.

3) Hand place the material, if necessary, to obtain the proper cross-section or shape of the ditch.

4) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, brooms, shovels, etc.

-- Surface material should be hard sandstone or limestone with a maximum dimension of 100 mm (4 in.). All other layers should have a minimum dimension of 127 mm (5 in.)

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 11/17/95

APPROVED BY: Joseph T. Deneault DATE 11/17/95

FORM OM-30

ACTIVITY NO. 285

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **RIPRAPPING OF EMBANKMENTS**

DESCRIPTION & PURPOSE:

Placing a blanket of stone or other material in the form of riprapping to furnish effective protection against erosion.

PERFORMANCE CRITERIA:

This activity will be performed around headwalls, under bridges, or on roadway slopes. Determine the source and insure availability of material prior to scheduling this activity.

CREW SIZE

Trans. Workers	4

EQUIPMENT

202/204	Pickup Truck		1
253	Tilt Trailer		1
303	Track Loader	(Opt.)	1
350	Loader w/Backhoe		1
371	Dump Truck		1
410/412	Hyd. Excavator	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Riprap Material

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	megagrams	24.0 - 35.0	1.00
	Tons	26.0 - 38.5	0.91

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE: ▓▓▓▓▓▓▓▓

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 4, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Prepare a smooth firm bed for riprap.

3) Pieces of stone, broken concrete or small boulders of a size that can be handled by one person are carefully placed. The placing of riprap must be started on the bottom of the slope.

4) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, brooms, shovels, etc.

-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

-- Riprap to include person sized stone or 152 mm - 203 mm (6 in. - 8 in.) nominal size stone.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dunecault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 286

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **INSTALLATION AND MAINTENANCE OF NON-BRIDGE STRUCTURES**

DESCRIPTION & PURPOSE:

The installation, replacement, and/or repairs of inlets, manholes, headwalls, crib walls, gabions, field or cut stone walls, floors and foundations of box culverts, retaining walls and other concrete structures.

PERFORMANCE CRITERIA:

This activity should be performed when it is necessary to install and/or repair the above listed structures.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck		(Opt.)	1
203	Crew Cab Pickup			1
253	Tilt Trailer			1
303	Track Loader		(Opt.)	1
337	Truck Crane		(Opt.)	1
350	Loader w/Backhoe			1
371	Dump Truck			1
410/412	Hyd. Excavator		(Opt.)	1
580	Mixer, Concrete	N/C	(Opt.)	1
584	Concrete Saw		(Opt.)	1
612	Compressor			1
	Vibrator	N/C	(Opt.)	1

MATERIALS

Fine Aggregate
Base Aggregate
Transit Mix
Cement
Cement Additive
Sand
Form Lumber
Timber Cribbing
Reinforcing Steel
Stone (Rip Rap) 152 m - 203m (6"-8") Nominal Size
Gabion Baskets
Concrete Blocks
Concrete Cribbing
Backfill Material
Building Stone

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 4 and 13, WVDOH Maintenance Manual*
Section 601, WVDOH Standard Specifications Roads and Bridges

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Remove old structures and/or excavate for new structure.
3) Construct necessary form work and place necessary reinforcing steel in accordance with engineering plans.
4) Place footing and floor (if required) and allow to cure if concrete is placed.
5) Construct walls (if required) and allow to cure if concrete is placed.
6) Install cover if required.
7) Remove traffic control devices.

GENERAL NOTES:

-- This work is generally done by District Heavy Maintenance Detachment.
-- All field personnel are working crew members.
-- The supervisor shall designate a member of the crew as leadperson who will be in charge.
-- Hand tools to include shovels, rakes, brooms, mattocks, carpenter tools and concrete finishing tools, etc.
-- Allow concrete to cure for 24 hours before removing forms.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

PLANNING NOTES:

-- 0.23 Mg (0.25 Ton) granular material per piece of cribbing.

-- 1 basket per 1.9 m^3 (2.5 y^3) of wall.

-- 3 bags mortar per 0.8 m^3 (1.0 y^3) stone.

-- 0.45 Mg (0.5 Ton) of sand per 0 .8 m^3 (1.0 y^3) stone.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Jasper T. Lemault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 287

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **REMOVING DITCHLINE OBSTACLES**

DESCRIPTION & PURPOSE:

The correction of minor slips, slides, rock falls, trees, sluffage and other major obstacles that block ditchline and are beyond normal ditching and blading operations to re-establish ditch flow line and restore road to safe condition. Also covers minor slips and washouts. Removal may require drilling, shooting, hauling and disposing of unsuitable material.

PERFORMANCE CRITERIA:

This work is to be performed prior to ditching / blading, pulling shoulders or ditches type activities and when ditches are blocked and impounding water; or whenever the roadways are in such a condition that the safety and convenience of the general public are impaired.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	5
TOTAL	6

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup			1
253	Tilt Trailer		(Opt.)	1
337	Truck Crane		(Opt.)	1
350	Loader w/Backhoe		(Opt.)	1
353/357	Endloader			3
371	Dump Truck			1
400/401	Grader		(Opt.)	1
410/412	Hyd. Excavator		(Opt.)	1
612	Compressor		(Opt.)	1
	Pavement Breaker	N/C	(Opt.)	1
	Chain Saws	N/C		2

MATERIALS

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	meters	229 - 335	0.16
	Feet	750 - 1100	0.05

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 9, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

SLIDE REMOVAL

A) Cut all trees and branches to proper length; remove from site.
B) If necessary drill and shoot rock that is too large to move with available equipment.
C) Remove and load material.
D) Dispose material in approved areas. Do not dispose of material where it will obstruct ditchline or overload slopes and cause another slip.

SLIPS AND WASHOUTS

A) Select borrow material and haul to site.
B) Spread material at fill area and compact.
C) Grade and shape roadway.

2) Restore roadway under appropriate roadway surface type activity.
3) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include shovels, rakes, etc.
-- Explosives to be handled by certified personnel only.
-- A minor slide is considered to be one that can be corrected in two days or less using the equipment listed in this standard.
-- Be sure trees and branches are cut off past ditchline to eliminate protrusion onto shoulder.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

PLANNING NOTES:

-- Dynamite: 1.1 kg (2.5 lbs.) per 300 mm (1 ft.).
-- Caps: 1 each per 300 mm (1 ft.).

RECOMMENDED BY: Julia W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30 | West Virginia Division of Highways Maintenance Division | ACTIVITY NO. 288

PERFORMANCE STANDARDS

ACTIVITY NAME: **PULLING SHOULDERS OR DITCHES PAVED ROADWAY**

DESCRIPTION & PURPOSE:

The shaping of shoulders or ditches to provide drainage from the edge of the pavement to the culvert or embankment, to eliminate water impoundments, shoulder or roadway failures and safety hazards.

Report the removal of accumulated debris from under, around, and behind guardrail to Activity 289.

PERFORMANCE CRITERIA:

Schedule this activity when ditches are blocked or are impounding water. Crew will perform culvert inspections and hand cleaning while performing this activity.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	7
TOTAL:	8

FLAGGERS NOT INCLUDED

EQUIPMENT

040/041	Sweeper	(Opt.)	1
203	Crew Cab Pickup		1
253	Tilt Trailer	(Opt.)	1
353/357	Endloader		1
371	Dump Truck		1
400/401	Grader		1
410/412	Hyd. Excavator	(Opt.)	1
599	Roller	(Opt.)	1
350/352	Backhoe	(Opt.)	1

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Shoulder Miles	2.0 – 3.0	23.5

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapters 04 and 06, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Transportation Worker to go ahead of grader to clean ditch line, mark pipes, headwalls, etc.

3) Ditch slopes and flow lines should retain a 4:1 or flatter slope.

4) Load, haul and dispose of waste material in an approved area.

5) Compact shoulder area.

6) Transportation Worker to follow grader cleaning around pipe inlets.

7) Clean and sweep roadway if necessary.

8) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- Number of trucks and operators will vary depending on haul distance to waste site.

-- For Core Maintenance Plan reporting purposes, if roadway is inspected but no ditching is necessary, indicate "not needed" on Core Maintenance Plan Report.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Report the removal of accumulated debris from under, around, and behind guardrail to Activity 289.

-- Report erosion/pollution control measures as Activity 410 - Erosion/Pollution Control.

RECOMMENDED BY: W Kyle Stalbarge DATE 8/31/2011

APPROVED BY: _____ DATE 9-1-11

FORM OM-30 | West Virginia Division of Highways Maintenance Division | ACTIVITY NO. 289

PERFORMANCE STANDARDS

ACTIVITY NAME: **DRESSING SHOULDERS UNDER GUARDRAIL**

DESCRIPTION & PURPOSE:

The removal of accumulated material or placement of material to control erosion under, around, and behind guardrail, to provide proper drainage to a culvert or embankment, to eliminate water impoundments, to correct shoulder/roadway failures and safety hazards, or to reestablish correct shoulder grade and slope.

PERFORMANCE CRITERIA:

Schedule this activity under, around, or behind guardrail as needed when proper lateral shoulder drainage is blocked by windrowed material, when a "false ditch" has been created by erosion, or when the area is impounding water.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

040/041	Sweeper	(Opt.)	1
203	Crew Cab Pickup		1
253	Tilt Trailer	(Opt.)	1
351	Compact Loader (Skid-Steer)	(Opt.)	1
353/357	Endloader	(Opt.)	1
371	Dump Truck	(Opt.)	1
400/401	Grader	(Opt.)	1
410/412	Hyd. Excavator	(Opt.)	1
599	Roller	(Opt.)	1
350/352	Backhoe	(Opt.)	1

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Feet	3000 – 4400	0.01

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapters 04 and 06, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Install erosion control devices as required per current directives.

3) Required work to be completed with hand tools or by use of various specialized equipment depending on quantity of material to be added or removed.

4) Unpaved shoulder slopes should be maintained at ¾ inch per foot.

5) Load, haul, and dispose of any excess material in an approved area.

6) Compact shoulder area as necessary.

7) Clean and sweep roadway as necessary.

8) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, shovels, brooms, etc.

-- The number of trucks and operators will vary depending on haul distance to waste site and amount of material to be added or removed.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Report installation of erosion control devices as Activity 410 - Erosion/Pollution Control.

RECOMMENDED BY: W Kyle Stollings DATE 8/31/2011

APPROVED BY: _____ DATE 9-1-11

FORM OM-30

West Virginia Division of Highways
Maintenance Division
PERFORMANCE STANDARDS

ACTIVITY NO. 301

ACTIVITY NAME: GUARDRAIL MAINTENANCE

DESCRIPTION & PURPOSE:

Installation, removal, repair, realignment, and upgrading of roadside and median guardrail to improve highway safety and appearance.

PERFORMANCE CRITERIA:

This activity is to be performed at the direction of the Assistant District Engineer, Maintenance, any time of the year or as quickly as possible after need is determined. Realignment, replacement and/or repair will conform to Standard Detail Drawings or plans. Upgrading of guardrail will be at the direction of the Assistant District Engineer, Maintenance, after determination of need and economic feasibility and then, only when damaged or deteriorated beyond effectiveness. Adjust cable guardrail tension as necessary per manufacturer's specifications.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

039	Guardrail Post Driver	N/C	(Opt.)	1
112	Tractor Attach.	N/C	(Opt.)	1
130	Utility Tractor		(Opt.)	1
203	Crew Cab Pickup			1
351	Compact Loader (Skid-Steer)		(Opt.)	1
353/357	Endloader		(Opt.)	1
371	Dump Truck			1
400/401	Grader		(Opt.)	1
550	Shoulder Maintainer		(Opt.)	1
580	Concrete Mixer	N/C	(Opt.)	1
591/599	Roller		(Opt.)	1
612	Compressor		(Opt.)	1

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Feet	130 – 191	0.23

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: 1) *Chapter 10, WVDOH Maintenance Manual*
2) *WVDOH Standard Details Book*
3) *WVDOH Standard Specifications, Roads & Bridges*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

INSTALL NEW GUARDRAIL

A) Restore and compact shoulder or median to proper grade and slope.

B) Establish alignment and locate postholes.

C) Drive posts or dig postholes and set posts per manufacture's specifications/standard details.

D) Attach offset blocks and other components as required.

E) Attach flex beam or cable as applicable.

F) Install end treatments or transitions, as applicable, per specifications/standard details.

G) If applicable, tension cable guardrail per specifications.

REMOVE OR UPGRADE GUARDRAIL

A) Remove existing guardrail, components, and posts.

B) Restore and compact shoulders or median to proper grade and slope.

C) If applicable, install new guardrail as described above.

D) Haul and properly dispose of unsuitable material.

REPAIR GUARDRAIL

A) Remove damaged sections, components, posts, etc.

B) Realign/replace posts as required.

C) Install replacement components per specifications and standard details.

D) If applicable, tension cable guardrail per specifications.

E) Restore and compact shoulder or median to proper grade or slope.

F) Haul and properly dispose of unsuitable material.

2) Remove traffic control devices.

GENERAL NOTES:

-- **Maintenance of "New Jersey" type median guardrail and concrete parapet guardrail will be reported under this activity.**

-- **All field personnel are working crew members.**

-- **Hand tools to include rakes, brooms, shovels, etc.**

-- **Number of operators may vary depending on optional equipment used.**

REPORTING NOTES:

-- **Report flaggers under Activity Code 813**

-- **Report feet of guardrail regardless of task being performed (installation, removal, repair, etc.)**

RECOMMENDED BY: W Kyle Stallings **DATE** 8/31/2011

APPROVED BY: _____ **DATE** 9-1-11

FORM OM-30

ACTIVITY NO. **302**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **REPAIR/REPLACE RIGHTS-OF-WAY FENCE**

DESCRIPTION & PURPOSE:

Repair, and when necessary, replace existing fence to maintain controlled access rights-of-way, provide security and protect property.

Report repair of privately-owned fences damaged during DOH operations to this Activity.

PERFORMANCE CRITERIA:

To be performed whenever the existing fence no longer serves its intended purpose. Work on privately-owned fences is to be performed with proper Right of Entry or Construction Easement.

CREW SIZE

Trans. Workers	4

EQUIPMENT

130	Utility Tractor	(Opt.)	1
112	Tractor Attach. N/C	(Opt.)	1
203	Crew Cab Pickup		1

FLAGGERS NOT INCLUDED

MATERIALS

Rights-of-Way Fence
Rights-of-Way Fence Posts

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	meters	73 - 107	0.33
	Feet	240 - 352	0.10

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Remove and properly dispose of existing fence and post where necessary.

3) Install new post, if required, and/or realign existing posts and secure fence to posts.

4) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include hammers, wire stretchers, post hole diggers, etc.

-- The supervisor shall designate a member of the crew as leadperson to be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 303

PERFORMANCE STANDARDS

ACTIVITY NAME: **MOWING – NON EXPRESSWAY**

DESCRIPTION & PURPOSE:

Mowing of vegetation along the highway rights-of-way with a tractor mounted mower. Mowing is to be performed within designated limits for the maintenance of an attractive roadway and to provide a safe sight distance.

PERFORMANCE CRITERIA:

Activities 308/312 "Litter Pickup and Disposal" are to be performed prior to mowing. Mowing to be performed when vegetation becomes unsightly and/or interferes with sight distance. Additional mowing should be performed for weed control. Mow to a height of not less than 6 in.

CREW SIZE		EQUIPMENT			
Trans. Worker	1	130	Utility Tractor	(Opt.)	1
		131	Tractor, Boom Mower	(Opt.)	1
		137	Tractor w/Right Hyd.	(Opt.)	1
		132,135,112	Mowing Attach. N/C	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Shoulder Miles	**7.0 - 10.0**	**0.88**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
			------	■	■	■	■	■	----------		

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: Chapter 10, WVDOH Maintenance Manual

1. Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2. Set mower to proper cutting height.
3. Mow in direction of traffic.
4. Remove all traffic control devices when completed.

GENERAL NOTES:

- Operator of extension arm rotary mower for mowing over guardrail must be a qualified operator.
- Mowing with tractor mowers in tandem may be more economical in some areas.
- Operator will be responsible for maintenance and field repair of machine.
- Necessary tools and parts to perform field maintenance will be assigned to the machine at all times.
- When mowing around special planting areas, take care to avoid damaging trees and shrubs.
- For planning purposes:
    - Primary roads are to be mowed 3 times/year with two passes made where possible: once prior to Memorial Day, a second time prior to the Fourth of July, a third time prior to Labor Day.
    - Paved secondary roads are to be mowed 2 times/year with two passes made where possible, including one pass behind the ditch.
    - Unpaved routes are to be mowed 1 time/year with one pass.
- Sight distance requirements at intersections on all routes may require more passes and/or more frequent mowing.

REPORTING NOTES:

- Report rest area mowing under Activity 309 – Rest Area Maintenance.
- Report flaggers and shadow vehicles under Activity Code 813.

RECOMMENDED BY: W. Kyle Stallings DATE 6/25/08

APPROVED BY: [signature] DATE 6/25/08

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 304

PERFORMANCE STANDARDS

ACTIVITY NAME: BRUSH CONTROL - HAND

DESCRIPTION & PURPOSE:

Hand cutting/removal of roadside brush to maintain an attractive roadway and to provide a safe sight distance.

PERFORMANCE CRITERIA:

Performance of this activity should be primarily in late fall and winter in areas where treatment with herbicides has not been performed.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

EQUIPMENT

113/114	Brush Chipper	(Opt.)	1
203	Crew Cab Pickup		1
230	Bus	(Opt.)	1
370/371	Dump Truck	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
■	■	■								■	■

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Use chain saw for brush greater than 2 inches.

3) Disposal of the vegetation may be accomplished using chipper to blow chips onto the rights-of-way; however, chips should be well dispersed, spread evenly over the ground. Piles of chips require removal and proper storage for future use, or proper disposal. Do not blow chips onto private property or in/on areas where they will be unsightly.

4) Apply chemicals to stumps in accordance with manufacturer's instructions. See also Chapter 15, WVDOH Maintenance Manual.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/19/02

APPROVED BY: Carl O. Thompson DATE 6/28/02

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 305

PERFORMANCE STANDARDS

ACTIVITY NAME: **BRUSH CONTROL - MACHINE**

DESCRIPTION & PURPOSE:

Machine cutting/removal of roadside brush to maintain an attractive roadway and to provide a safe sight distance.

PERFORMANCE CRITERIA:

Performance of this activity year-round -- particularly in late fall and winter.

CREW SIZE

Trans. Workers	2

EQUIPMENT

113	Brush Chipper	(Opt.)	1
131	Tractor, Boom Mower		1
132	Mowing Attach. N/C		1
371	Dump Truck	(Opt.)	1
	Chain Saw N/C		1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Shoulder Miles	**3.0 – 4.5**	**4**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
■	■	■	- - - - -	- - - - -	- - - - -	- - - - - -	- - - - - -	- - - - - -	- - - - - -	■	■

LEGEND: POSSIBLE PERFORMANCE: - - - - - PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: Chapter 10, WVDOH Maintenance Manual

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Dispose of vegetation using chipper; blow chips back onto rights-of-way where possible, being careful not to blow onto private property or in areas where they will be unsightly. If necessary, haul to a disposal site.

3) Apply chemicals to stumps in accordance with manufacturer's instructions. See also Chapter 15, WVDOH Maintenance Manual.

GENERAL NOTES:

- The use of the chipper and dump truck will depend on the type of vegetation to be cut on location.
- Crew size may vary depending on volume of work to be accomplished.
- Cutting with extension arm mower limited to brush less than 3 in. in diameter. Brush/trees 3 in. or greater in diameter are to be cut with a chain saw. Chain saw cutting must be performed far enough ahead of or behind of mower so flying debris from mower does not endanger the saw operator. Cutting large trees with mower is highly damaging to the mower.

REPORTING NOTES:

-- Report flaggers and shadow vehicles under Activity Code 813.

RECOMMENDED BY: W. Kyle Stollings DATE 6/23/08

APPROVED BY: Jack L. Walker DATE 6/23/08

FORM OM-30

ACTIVITY NO. **306**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **WILDFLOWERS**

DESCRIPTION & PURPOSE:

Providing an attractive/protective area along the roadway by establishing and maintaining wildflowers.

Includes all preparation work for establishing and maintaining the wildflower planting site:

1) Preparatory mowing of the site; 2) Application of herbicides, pesticides, and/or fungicides; 3) Seeding; 4) Mulching; 5) Application of lime and fertilizers; 6) Signing of sites, etc.

PERFORMANCE CRITERIA:

Performance of this activity to establish, modify, or maintain a landscape which will present an attractive view, enhance roadway appearance, control erosion and reduce the mowing area.

CREW SIZE

Trans. Workers	4

FLAGGERS NOT INCLUDED

MATERIALS

Herbicides	Pesticides
Mulch Material	Signs & Posts
Lime	
Fertilizer	
Wildflower Seed	

EQUIPMENT

103	Herbicide Spray - Trk. Mtd.		1
110	Hydro Seeder N/C	(Opt.)	1
131	Boom Mower Tractor	(Opt.)	1
133	Tractor - 4.6 m (15')Rotary	(Opt.)	1
135	Tractor Attachments	(Opt.)	1
203	Crew Cab Pickup		1
253	Tilt Trailer	(Opt.)	1
705	Water Tank N/C	(Opt.)	1
	Garden Tiller N/C	(Opt.)	1
	Weedeater N/C	(Opt.)	1

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	hectare	1.2 - 1.8	20
	Acre	3.0 - 4.4	8

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
		----------						-----		-----	

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Sections 106, 652-654, 717, WVDOH Standard Specifications for Roads and Bridges*
Chapter 10, WVDOH Maintenance Manual

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

SEEDING AND FERTILIZING

A. Collect soil samples.
B. Submit samples to County Soil Conservation Service agent for analysis.
C. If lime is required, apply no sooner than 2 weeks before seeding.
D. If area to be seeded is barren and crusted, the surface should be broken and left roughened to a depth of 51 mm - 76 mm (2 in. - 3 in.).
E. Apply seed, fertilizer and mulch as indicated by soil samples.

MULCHING AND FERTILIZING

A. Cultivate lightly, remove weeds.
B. Spray fertilizer and mulch per specifications.

REMOVAL OF UNDESIRABLE VEGETATION

A. Cut or dig out vegetation by manual or machine methods as necessary. If vegetation removal results in holes or extensive bare spaces, fill the holes with soil, cultivate the bare places and plant new vegetation by the methods given above. Take necessary additional measures to prevent erosion.

2) Remove traffic control devices.

VEGETATION OR INSECT CONTROL WITH CHEMICALS

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Prepare chemical as specified by manufacturer's instructions.
2) Spray recommended quantity on selected areas according to directions, or apply chemical pellets in quantity and by method as directed by manufacturer.
3) Remove traffic control devices.

GENERAL NOTES:

-- Hand tools to include rakes, shovels, etc.
-- Supervisor shall designate a member of the crew as leadperson who will be in charge.
-- Personnel requirements will vary depending on the work to be accomplished.
-- Caution should be taken to prevent leaching, wind drift and damage to private property.
-- Appropriate protective clothing must be worn at all times.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- Report accomplishments at the time seeds are planted.

Example:

An area 91 m (300 Ft.) by 46 m (150 Ft.) is planted in wildflowers.

TO CALCULATE HECTARES:

Length x Width ÷ m² / hectare
10000 m² per hectare
1000 m per km

A. Convert length in kilometers (km) to meters (m)

B. Multiply length (m) by width (m)

91 m X 46 m = 4186 m

C. Divide "B" answer by 10000 (m² per hectare)

4186 m ÷ 10000 m² = 0.42 hectare

TO CALCULATE ACRES:

Length x Width ÷ Ft.² / Acre
43,560 Ft² per Acre
5,280 Ft. per Mile

A. Convert length in Miles (Mi.) to Feet (Ft.)

B. Multiply length (Ft.) by width (Ft.)

300 Ft. x 150 Ft. = 45,000 Ft.

C. Divide "B" answer by 43,560 (Ft. ² per Acre)

45,000 Ft. ÷ 43,560 Ft.² = 1.03 Acres

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Jasper T. Denecault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 307

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **HERBICIDE SPRAYING**

DESCRIPTION & PURPOSE:

Application of chemicals either by hand or vehicle mounted unit, to control / eliminate the growth of undesirable vegetation.

PERFORMANCE CRITERIA:

Perform this activity early spring through early fall for grasses and weeds. Perform this activiity in late summer for brush, cut stump and basil treatment as weather permits.

CREW SIZE

Trans. Workers	4

EQUIPMENT

103	Herb. Spray - Trk.	(Opt.)	1
105	Herb. Spray - Trl. N/C	(Opt.)	1
202/204	Pickup Truck		1
371	Dump Truck	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Herbicides

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
METRIC:	hectare	6 - 8	4.35
	Acre	14 - 20	1.78

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
——	——									——	——

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Place predetermined quantity of chemical in spray tank and mix thoroughly with specified amount of water.

3) Spray shoulder or rights-of-way being sure to maintain specified vehicle speed and pump pressure.

4) Refill spray unit with chemicals and water mix as needed.

5) Remove traffic control devices.

GENERAL NOTES:

-- Herbicides must be applied as per specification and under the supervision of a certified applicator/registered technician.

-- Caution is required to prevent leaching or wind drift of chemicals off target area.

-- Only DOH approved chemicals will be used.

-- Special care must be utilized to wash equipment and properly dispose of wash water.

-- Supervisor in lead truck should have communication with spray truck to advise areas to spray or not to spray. Paticular care must be given to avoid spraying shrubbery, fruit trees or highly esteemed trees beyond right-of-way limits.

WARNING:

-- The application of herbicides, fungicides, and insecticides can be hazardous to the crew or persons in the vicinity. Follow manufacturer's instructions carefully. A certified applicator / registered technician is required for all chemical applications.

-- Organizational supervisors or office assistants must be advised of the chemical name of material being used so as to advise public if required.

WORK METHODS:

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

Example:

A 16 km (10 Mi.) length (total spray area) of guardrail was sprayed with herbicide a width of 1.8 m (6 Ft.).

TO CALCULATE HECTARES:

Length x Width ÷ m^2 / hectare
10000 m^2 per hectare
1000 m per km

A. Convert length in kilometers (km) to meters (m)

16 km x 1000 m = 16000 m

B. Multiply length (m) by width (m)

16000 m x 1.8 m = 28800 m

C. Divide "B" answer by 10000 (m^2 per hectare)

28800 m ÷ 10000 m^2 = 2.9 hectare

TO CALCULATE ACRES:

Length x Width ÷ $Ft.^2$ / Acre
43,560 Ft^2 per Acre
5,280 Ft. per Mile

A. Convert length in Miles (Mi.) to Feet (Ft.)

10 Mi. x 5,280 Ft. = 52,800 Ft.

B. Multiply length (Ft.) by width (Ft.)

52,800 Ft. x 6 Ft. = 316,800 Ft.

C. Divide "B" answer by 43,560 ($Ft.^2$ per Acre)

316,800 Ft. ÷ 43,560 $Ft.^2$ = 7.3 Acres

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Denault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 308

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **LITTER PICKUP AND DISPOSAL**

DESCRIPTION & PURPOSE:

Pickup of litter from along roadway, median and rights-of-way to improve appearance, prevent ditch and headwall blockages, fire hazards and eliminate safety and health hazards.

Performance of this type task at Roadside Parks or Rest Areas to be reported as Activity 309-Rest Area Maintenance.

PERFORMANCE CRITERIA:

Litter pickup is to be performed weekly on expressway rights-of-way, semi-annually on paved road rights-of-way and annually on unpaved road rights-of-way.

CREW SIZE

Trans. Workers	4

EQUIPMENT

202/204	Pickup Truck		1
203	Crew Cab Pickup	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Plastic Garbage Bags
114 - 152 L (30-40 Gal.)

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Bags	**52 - 77**	**0.46**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

I. FOR PICKUP OF LITTER

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) On divided highways use three laborers; one on each side of the roadway and one in the median. On non-divided highways use two workers -- one on each side of roadway.

3) Personnel with plastic trash bags are to be transported to the start site and dropped off. They will proceed along the highway as stated above, picking up trash, placing it in bags. When bags are filled, they will be secured and placed along the roadway shoulder for pickup later that day.

GENERAL NOTES:

-- All field personnel are working crew members.

-- The supervisor shall appoint a member of the crew as leadperson.

-- Litter aprons to be used.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Demeault DATE JUN 08 1995

FORM OM-30 ACTIVITY NO. 309

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **REST AREA MAINTENANCE**

DESCRIPTION & PURPOSE:

All custodial and maintenance operations performed at the Interstate Rest Areas / Welcome Centers and roadside rest areas to maintain a clean, safe, sanitary, attractive, and operable condition.

PERFORMANCE CRITERIA:

Contract Forces: **As defined in the Division's applicable agreement and specifications documents with the Contractor.**

State Forces: **As directed by the Assistant District Engineer, Maintenance.**

CREW SIZE

As Required

EQUIPMENT

As Required

MATERIALS

As Required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		**1.00**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*
Sections 652-654, WVDOH Standard Specifications for Roads and Bridges

1. Refer to the noted references for those grounds maintenance operations performed by State Forces.

2. Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

GENERAL NOTES:

-- Refer to the Division's Contract Maintenance Agreement concerning the Division's / Contractor's responsibilities for Interstate Rest Areas / Welcome Centers.

REPORTING NOTES:

-- Mowing of grass at all roadside rest areas to be reported to Activity 309. Contract vendor's invoices and inventory supplies for rest areas to be reported to Activity 309.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 310

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **DEAD ANIMAL - *NOT DEER* - PICKUP/REMOVAL**

DESCRIPTION & PURPOSE:

Pickup and removal of dead animals, excepting deer, which are constituting safety or health hazards, and/or unsightly conditions.

*DISPOSAL SITE FEES FOR CARCASSES TO BE CODED TO THIS ACTIVITY.

PERFORMANCE CRITERIA:

To be performed immediately upon notification or observation.

CREW SIZE

Trans. Worker	1

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck		1
253	Tilt Trailer	(Opt.)	1
353/357	Endloader	(Opt.)	1
371	Dump Truck	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Remove animal carcasses from roadway or roadway rights-of-way.

2) Disposal in an approved area or by burying.

GENERAL NOTES:

-- Hand tools to include rakes, shovels, brooms, etc.

-- Removal of large animals may require an additional transportation worker and/or possibly an endloader.

-- If equipment such as an endloader is required, or the area is hazardous, place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Ducarult DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 312

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **LITTER DISPOSAL/SUPPORT (NON-DOH FORCES)**

DESCRIPTION & PURPOSE:

All administrative support expenses and the actual disposal of collected litter for other programs/groups such as:

Governor's Summer Youth Program (GSYP)
Department of Corrections-Work Release (DOC)
Community Worker's Employment Program (CWEP)

*DISPOSAL SITE FEES FOR NON-DOH COLLECTED LITTER ARE TO BE CODED TO THIS ACTIVITY.

PERFORMANCE CRITERIA:

To be performed upon notification or as required by the Division's participation in any of the noted programs.

CREW SIZE

Trans. Workers	2

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck		1
211	Van	(Opt.)	1
230	Bus	(Opt.)	1
353/357	Endloader	(Opt.)	1
371	Dump Truck	(Opt.)	1

MATERIALS

Garbage Bags 114 - 152 L (30-40 Gal.)
Temporary Signs
Safety Vests

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

Refer to the specific agreement to determine the Division's responsibilities/obligations.

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Personnel with plastic trash bags are to be transported to the start site and dropped off. They will proceed along the highway picking up trash and placing it in bags. When bags are filled, they will be secured and placed along the roadway shoulder for pickup later that day.

3) Load accumulated trash bags, haul to waste site and unload.

GENERAL NOTES:

-- Dump trucks shall not be utilized to cruise the roadway picking up unbagged litter.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph E. Dimcault DATE JUN 08 1995

FORM OM-30 West Virginia Division of Highways ACTIVITY NO. 313
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: CONTRACT / HIRED MAINTENANCE

DESCRIPTION & PURPOSE:

Expenses (invoices) associated with the use of contractors or other outside vendors hired to perform maintenance tasks such as:

Guardrail Replacement
Herbicide Application
Rest Area Maintenance
Roadway Striping
Tree Trimming/Removal
Shoulder and Ditch Work
All Department of Corrections Invoices

Do not use this Activity for P.O. Paving (Act. 206) or for Embankment Stabilization Contract (Act. 413).

PERFORMANCE CRITERIA:

As directed by the District Maintenance Engineer.

CREW SIZE

N/A

EQUIPMENT

N/A

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Dollars		

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: [redacted]

REPORTING NOTES:

This Activity designed to gather the invoice expenses associated with all contracted maintenance tasks with the exception of:

Purchase Order Paving (Act. 206)
Embankment Stabilization Contract (Activity 413)

RECOMMENDED BY: W Kyle Stillings **DATE** 6/16/2011

APPROVED BY: _____ **DATE** 6-16-2011

FORM OM-30

ACTIVITY NO. 314

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SUPERVISION - WORK RELEASE PROGRAM**

DESCRIPTION & PURPOSE:

Division of Highway's personnel and equipment expenses associated with the supervision and transportation of Department of Corrections - Work Release crews.

PERFORMANCE CRITERIA:

To be performed as requested by the Assistant District Engineer, Maintenance.

CREW SIZE

As Required

EQUIPMENT

As required

FLAGGERS NOT INCLUDED

MATERIALS

As Required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE: ▓▓▓▓▓▓

WORK METHODS:

-- Refer to the Division's agreement with the Department of Corrections to determine the Division's responsibilities/obligations.

REPORTING NOTES:

-- Activity 314 for recording DOH employee/equipment hours utilized during the supervision and/or transportation of Work Release crews.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 315

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **DEAD DEER - PICKUP/REMOVAL**

DESCRIPTION & PURPOSE:

Pickup and removal of dead deer, constituting safety or health hazards, and/or unsightly conditions.

*DISPOSAL SITE FEES FOR DEER CARCASSES TO BE CODED TO THIS ACTIVITY.

PERFORMANCE CRITERIA:

To be performed immediately upon notification or observation.

CREW SIZE

Trans. Workers	2

EQUIPMENT

202/204	Pickup Truck		1
253	Tilt Trailer	(Opt.)	1
353/357	Endloader	(Opt.)	1
371	Dump Truck	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Remove deer carcasses from roadway or roadway rights-of-way.

2) Disposal in an approved area or by burying.

GENERAL NOTES:

-- Hand tools to include rakes, shovels, brooms, etc.

-- If the area is hazardous, traffic control in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition, will be required.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dunecult DATE JUN 08 1995

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **HAND MOWING/TRIMMING**

DESCRIPTION & PURPOSE:

The hand mowing and trimming of roadside vegetation along the roadway areas not safely accessible to tractor mounted mower units and in and around the various roadway appurtenances to maintain a neat and attractive appearance and provide safe sight distance.

PERFORMANCE CRITERIA:

Performed as required. Spot removal of small saplings and small quantities of brushy vegetation may be reported to this activity. Refer to Activity 304 -- Brush Control - Hand, for removal of brush in quantity.

CREW SIZE

Trans. Worker	1

FLAGGERS NOT INCLUDED

EQUIPMENT

136	Lawn Mower		(Opt.)	1
	Chain Saw	N/C	(Opt.)	1
	Weedeater	N/C	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
			-----						----------		

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 10, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Set mower to proper cutting height.

3) Mow in direction of traffic.

4) Remove all traffic control devices when completed.

REPORTING NOTES:

-- Report rest area mowing under Rest Area Maintenance - Activity 309.

-- Report mowing at facilities as Building and Grounds - Activity 816.

RECOMMENDED BY: Julian W. Ware DATE 6/8/93

APPROVED BY: Joseph F. Duncan DATE JUN 08 1995

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 317

PERFORMANCE STANDARDS

ACTIVITY NAME: **MOWING – EXPRESSWAY**

DESCRIPTION & PURPOSE:

Mowing of expressway (Interstate / APD Corridor) rights-of-way with a tractor mounted mower. Mowing is to be within designated limits for the maintenance of an attractive roadway and to provide a safe sight distance.

PERFORMANCE CRITERIA:

Activities 308/312, "Litter Pickup and Disposal" is to be performed prior to mowing. First mowing should be done before grass reaches a height of 12 inches. Mow to a height of not less than 4 inches. Additional mowing should be done for weed control.

CREW SIZE

Trans. Worker	1

EQUIPMENT

130	Utility Tractor	(Opt.)	1
131	Tractor, Boom Mower	(Opt.)	1
137	Tractor w/Right Hyd.	(Opt.)	1
138	Tractor w/Dual Hyd.	(Opt.)	1
132,135,112	Mowing Attach. N/C	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Acre	18.8 – 27.5	0.32

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
			----------	■	■	■	■	■	----------		

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: Chapter 10, WVDOH Maintenance Manual

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Set mower to proper cutting height.
3) Mow in direction of traffic.
4) Remove all traffic control devices when completed.

GENERAL NOTES:

- Operator of extension arm rotary mower for mowing over guardrail must be a qualified operator.
- Mowing with tractor mowers in tandem may be more economical in some areas.
- Operator will be responsible for maintenance and field repair of machine.
- Necessary tools and parts to perform field maintenance will be assigned to the machine at all times.
- When mowing around special planting areas, take care to avoid damaging trees and shrubs.
- Additional mowing may be required to coincide with special events (i.e. holidays, fairs, festivals, etc.) to improve the roadside appearance for these events.
- For planning purposes, plan a complete mowing cycle every four (4) weeks. The first cycle should be completed by Memorial Day. Final cut should be planned so that there will be no vegetation higher than eight (8) inches in the medians over the winter.
- After Labor Day, plan to include mowing all areas within the right-of-way that lie outside the normal mowing limits to improve the general appearance of the roadside and control brush and tree growth.

REPORTING NOTES:

-- Report rest area mowing under Activity 309 – Rest Area Maintenance.

-- Report flaggers and shadow vehicles under Activity Code 813.

RECOMMENDED BY: W. Kyle Stallings DATE 6/23/08

APPROVED BY: [signature] DATE 6/23/08

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **ANTI-ICING OR DEICING WITH BRINE**

DESCRIPTION & PURPOSE:

The loading and application of salt brine or liquid calcium chloride for anti-icing or deicing purposes on priority routes and at hazardous locations to prevent snow and ice from bonding to pavement, and to facilitate snow removal for improved traffic safety.

PERFORMANCE CRITERIA:

Perform anti-icing in optimum weather conditions on priority routes and hazardous areas in advance of snow or ice precipitation. Perform deicing as necessary during storm event as conditions allow.

CREW SIZE

Trans. Worker(s)

Flaggers Not Included

EQUIPMENT

201	Crew Cab (w/ Brine Tank)	(Opt.)	1
206	Pickup (w/ Brine Tank)	(Opt.)	1
250	Trailer (w/ Brine Tank)	(Opt.)	1
253	Tilt Trailer (w/ Brine Tank)	(Opt.)	1
283	Road Tractor	(Opt.)	1
370	Ton Dump Truck (w/ Brine Tank)	(Opt.)	1
371	Dump Truck (w/ Brine Tank)	(Opt.)	1
377	Tandem Dump Truck (w/ Brine Tank)	(Opt.)	1
709	Tanker	(Opt.)	1
764	Tank Truck Mounted	(Opt.)	1

MATERIALS

Salt Brine
Liquid Calcium Chloride

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/per Unit
Gallons	5,000-7,500	0.0015

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
■	■	■	———						———	■	■

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: Chapter 5, WVDOH Maintenance Manual

1) Check equipment.

2) Load equipment with brine.

3) Proceed to priority route or potential hazardous area.

4) Utilize traffic control as necessary in accordance with the current "Traffic Control for Street and Highway Construction and Maintenance Operations."

5) Apply brine at desired application rate based on weather conditions.

6) Return to brine storage location for refilling if necessary.

7) Repeat as necessary.

GENERAL NOTES:

At conclusion of storm, inspect and clean equipment.

REPORTING NOTES:

Report costs associated with brine production under Activity Code 345.

RECOMMENDED BY: W Kyle Stollings DATE 8/31/2011

APPROVED BY: _____ DATE 9-1-2011

FORM OM-30

ACTIVITY NO. 341

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **MECHANICAL APPLICATION OF SRIC MATERIALS**

DESCRIPTION & PURPOSE:

The loading and mechanical application of abrasives and / or chemicals, with or without plowing, to provide vehicle traction at hazardous locations, to prevent snow and ice from bonding to pavement, and to facilitate snow removal by plowing for improved traffic safety.

PERFORMANCE CRITERIA:

Perform on pre-assigned routes in accordance with Chapter 5, WV DOH Maintenance Manual at the start of snowfall, and repeat as necessary during storm.

CREW SIZE

Trans. Worker(s)*	1

FLAGGERS NOT INCLUDED

EQUIPMENT

012	Spreader 3.8 m^3(5 yd^3)	(Opt.)	1
013	Spreader 6.9 m^3 (9 yd^3)	(Opt.)	1
020	Plow, Fixed Angle	(Opt.)	1
021	Plow, Revers.	(Opt.)	1
353/357	Endloader		1
371	Dump Truck	(Opt.)	1
377	Dump Truck, Tandem	(Opt.)	1

MATERIALS

SRIC Abrasives
Calcium Chloride
Sodium Chloride

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
METRIC:	megagrams	17.0 - 25.0	0.35
	Tons	19.0 - 27.5	0.32

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
									—		

LEGEND: POSSIBLE PERFORMANCE: ---- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 5, WVDOH Maintenance Manual*

1) Perform equipment operational test.

2) Load equipment with chemical / abrasive mixture.

3) Proceed to assigned routes.

4) Plow, if necessary, and apply abrasives at predetermined rate on assigned routes.

   If chemical / abrasive mixture is being used, spread a strip in center of road where Average Daily Traffic (ADT) will allow, in tangent sections and on high side of curves in superelevated sections.

   It may be necessary to treat one lane at a time, particularly where the ADT will not allow center of road application.

   When single lane application is necessary, reduce the application to one half the recommended treatment for two-lane mile contained in the current Maintenance Manual.

   Treat steep grades and intersections. Caution and avoidance of creating safety hazards is to be observed when treating dangerous curves and/or blind spots.

5) Return to headquarters after treating assigned routes for reloading and next assignment.

6) Repeat steps 1 through 5 throughout duration of the storm.

GENERAL NOTES:

1) Chemicals are NOT to be applied to stone base roads.

2) Chemicals or Chemical / Abrasive mixtures are NOT to be applied to low type bituminous roads except when the low type bituminous pavement has been used to overlay a previously high type bituminous pavement.

3) At conclusion of storm, inspect and clean equipment.

   * Refer to Volume 5, WVDOH Maintenance Manual regarding the use of helpers.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Leonard DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **342**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SNOW PLOWING OR BLOWING**

DESCRIPTION & PURPOSE:

Plowing or blowing of accumulated snow from roadway without application of chemicals or abrasives to provide improved travel for the public.

PERFORMANCE CRITERIA:

Perform anytime during snow and ice season when snow depth reaches approximately 51 mm (2 in.). A snow blower or dozer shall be used when snow depths are such that conventional plowing will not suffice or is not possible.

CREW SIZE

Trans. Worker(s)*	1

FLAGGERS NOT INCLUDED

EQUIPMENT

020	Plow, Fixed Angle		1
022	Plow, V-type	(Opt.)	1
024/025	Snow Blower	(Opt.)	1
202/204	Pickup Truck		1
301	Tractor Dozer	(Opt.)	1
371	Dump Truck		1
377	Dump Truck, Tandem	(Opt.)	1
400/401	Grader	(Opt.)	1
405	Grader, All Wheel	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
■	■	■								■	■

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 5, WVDOH Maintenance Manual*

1) Check equipment.

2) Proceed to assigned route with blade on pavement as necessary.

3) Plow next priority routes in order.

GENERAL NOTES:

-- Routes should be plowed in order of SRIC priority.

-- Equipment checks should be performed periodically during the shift.

-- Dozers will not be used on paved roads except at the direction of the Assistant District Engineer, Maintenance.

* Refer to Volume 5, WVDOH Maintenance Manual regarding the use of helpers.

RECOMMENDED BY: Julia W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dineault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 343

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SNOW FENCE**

DESCRIPTION & PURPOSE:

The installation, removal and maintenance of snow fence to control snowdrifts.

PERFORMANCE CRITERIA:

The erection of a snow fence is to be performed in early fall. Removal is to be performed in the spring; after snow season. In each instance, proper permission shall be obtained from the affected property owner prior to entering upon said property.

CREW SIZE

Trans. Workers	5

EQUIPMENT

202/204	Pickup Truck	1
371	Dump Truck	1

FLAGGERS NOT INCLUDED

MATERIALS

Snow Fence
Snow Fence Posts
Wire

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
METRIC:	meters	229 - 335	0.13
	Feet	750 - 1100	0.04

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 5, WVDOH Maintenance Manual*

1) Load materials and haul to site.

2) Erect fence at predetermined location.

3) Maintain as required.

4) Remove, load and transport to storage site.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include sledge, pliers, etc.

-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

PLANNING NOTES:

-- 76 mm (0.25 ft.) of fence per 305 mm (1 ft.) of production (including fence, posts and wire).

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 344

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **POST STORM CLEANUP**

DESCRIPTION & PURPOSE:

Mechanically and / or manually removing windrowed snow or accumulated abrasives from shoulders, bridges, intersections, drainage structures at grade RR crossings, or other remaining roadway sections in order to restore drainage and eliminate hazardous conditions.

PERFORMANCE CRITERIA:

Perform on SRIC Priority Routes 1 and 2 only; normally during daylight hours immediately after storm and when roadway surfaces have been cleared.

Do not perform until all first and second priority routes have been opened to two-way traffic and third priority routes have been opened to at least one-way traffic.

CREW SIZE

Trans. Workers	4

FLAGGERS NOT INCLUDED

EQUIPMENT

020	Plow, Fixed Angle	(Opt.)	1
022	Plow, V Type	(Opt.)	1
202/204	Pickup Truck		1
353/357	Endloader		1
371	Dump Truck		1
377	Dump Truck, Tandem	(Opt.)	1
400/401	Grader	(Opt.)	1
405	Grader, All Wheel	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
			----------						----------		

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 5, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Inspect all at grade RR crossings after the setback operation passes over them; remove hazards to highway or rail traffic.

3) Clean bridges and intersections.

4) Open all drainage facilities to permit rapid discharge of water from melting snow or rain.

5) Remove accumulated snow from all bridge parapet walls and impact attenuators.

6) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include shovels, hoes, mattocks, etc.

-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

-- Number of trucks and operators will vary depending on need.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SRIC SUPPORT OPERATIONS**

DESCRIPTION & PURPOSE:

All operations which are performed during SRIC season to support SRIC functions; winter conditions reporting, radio operations; SRIC Road Patrol, stand by time, hauling, mixing, stockpiling and restocking chemicals and abrasives.

PERFORMANCE CRITERIA:

All SRIC support operations to be performed as required.

CREW SIZE

As required

EQUIPMENT

As required

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 5, WVDOH Maintenance Manual*

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include shovels, hoes, mattocks, etc.

-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

-- Number of trucks and operators will vary depending on need.

REPORTING NOTES:

-- Cleaning of SRIC equipment will be charged to "Cleaning of Equipment" -- Activity 815.

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30 | West Virginia Division of Highways
Highway Operations Division | ACTIVITY NO. 361

PERFORMANCE STANDARDS

ACTIVITY NAME: **CODING AND SPOTTING**

DESCRIPTION & PURPOSE:

CODING: Determining passing and no passing zones by evaluating roadway alignment, horizontal and vertical curves and other areas of potential hazard; marking the roadway to provide guidance for center line crew.

SPOTTING: Premarking pavement for center line striping by painting spots along center line of roadway to serve as a guide for center line crew.

PERFORMANCE CRITERIA:

Performed prior to center lining where roads have been resurfaced, where center lines have been obliterated or where passing or no passing zones are incorrectly marked. Coding work should be performed when foliage is fully developed.

Coding requires passenger vehicle to establish normal line of sight distance.

Spotting will be performed one week or less before striping.

CREW SIZE

Trans. Workers	3

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup Truck*	(Opt.)	1
221	Sedan**	(Opt.)	1

* Spotting
** Coding

MATERIALS

Pavement Paint
Spray Paint

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Miles	**6.0 - 8.8**	**3.00**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

CENTERLINE CODES

Two-Lane, Two-Way Roadways


Skip to solid left


Solid right to a skip


Double to a solid right


Solid left to a double


Changeover - left to right


Changeover - right to left


Solid right to a double


Skip to solid right


Solid left to a skip


Double to a solid left


Begin double


End double

One-Way Roadways


End Solid


Begin solid


Skip to a solid


End skip


Begin skip


Solid to a skip

WORK METHODS:

TECHNICAL REFERENCE: *Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, US Department of Transportation and Chapter 12, WVDOH Maintenance Manual*

1) Erect traffic control as needed.

2) Evaluate passing / no passing zones as shown in MUTCD.

3) Indicate passing / no passing zones by marking pavement along center line of roadway with proper code.

4) Indicate center of the roadway by spotting where voids exist in correlation with coding to provide guidance for paint crew.

5) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- The supervisor shall designate a member of the crew as leadperson to be in charge.

-- NOTE: Care should be exercised not to recode a previous passing zone to non-passing as a result of failure to keep brush cut. The Assistant District Administrator, must be notified so that affected areas can be cut to preserve passing zones.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 4/15/99

APPROVED BY: Carl O. Thompson DATE 4-16-99

FORM OM-30

ACTIVITY NO. **363**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **PAVEMENT MARKINGS**

DESCRIPTION & PURPOSE:

The installation / application of raised and special markings and the eradication of obsolete and conflicting pavement markings.

PERFORMANCE CRITERIA:

Install, replace, or eradicate as needed or otherwise as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Workers	3

FLAGGERS NOT INCLUDED

EQUIPMENT

033	Paint Remover Mach.	(Opt.)	1
044	Sweeper Trk. Mtd.	(Opt.)	1
203	Crew Cab Pickup		1

MATERIALS

Pavement Paint
Glass Beads
Raised Pavement Markers
Epoxy Adhesive or Activator
Pavement Marking Tape or
Plastic Marking Material
Pavement Primer or Activator

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with the "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Locate points at which markers are to be installed.

3) Assure that each location is clean and dry.

4) Apply adhesive and install markers.

5) Allow adhesive to dry.

6) Remove traffic control devices.

GENERAL NOTES:

-- Hand tools shall include brooms, brushes, etc.

-- The supervisor shall designate a crew member as leadperson to be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Demeault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 364

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SIGN INSTALLATION/MAINTENANCE**

DESCRIPTION & PURPOSE:

Removal and replacement of damaged, defaced, or inadequate signs to improve safety and appearance and the installation of new signs for the same purpose. Work performed inside the shop (inclement weather days) such as painting barrels, assembling barricades will also be charged to this activity.

PERFORMANCE CRITERIA:

Remove and replace as needed, install new signs as directed by the Assistant District Engineer, Maintenance and/or Director, Traffic Engineering Division.

CREW SIZE

Trans. Workers	3

EQUIPMENT

202/204	Pickup Truck	(Opt.)	1
203	Crew Cab Pickup		1
261	Flatbed Truck	(Opt.)	1
270	Mechanics Truck	(Opt.)	1
930	Aerial Platform	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Sign Posts
Barricades
Delineators
Signs
Miscellaneous Sign Parts

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 12, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with the "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Inspect signs for structural integrity, visibility, legibility, and reflectivity annually.

3) Inspect breakaway sign supports annually.

4) Clean, reset, realign and clear away obstructions as necessary to assure that sign, marker or delineator will perform its function properly.

5) Install new posts and attach new sign to posts.

6) Load old materials onto truck. Clean up area.

7) Remove traffic control devices.

8) New signs should be inspected for reflectivity and proper illumination as soon as practicable after installation.

GENERAL NOTES:

-- All field personnel are working crew members.

-- The supervisor shall designate a crew member as leadperson who will be in charge.

-- Hand tools shall include brooms, shovels, brush cutters, etc.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deweardt DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 365

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **ILLUMINATION DEVICES AND SIGNALS**

DESCRIPTION & PURPOSE:

Work accomplished to maintain, repair and replace illumination devices on signs, roadways, pedestrian walkways, bridges and electrical traffic and pedestrian signals.

PERFORMANCE CRITERIA:

Work will be scheduled and accomplished as soon as possible after malfunction or failure occurs.

CREW SIZE

Trans. Workers	1

EQUIPMENT

202/204	Pickup Truck		1
931	Aerial Bucket	(Opt.)	1

FLAGGERS NOT INCLUDED

MATERIALS

Illumination Repair Posts

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 12, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with the "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Make necessary test to determine source of malfunction or failure.

3) Perform necessary repairs.

4) Replace parts as required.

5) Repeat system tests to assure effectiveness of actions taken.

6) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- The supervisor shall designate a crew member as leadperson who will be in charge.

-- Hand tools include electrical repair tools.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 366

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **IMPACT ATTENUATORS**

DESCRIPTION & PURPOSE:

Inspection of impact attenuators and/or repairing or replacing impact attenuators which have been struck by a vehicle, vandalized, or otherwise degraded to provide optimum safety.

PERFORMANCE CRITERIA:

Perform routine inspection as detailed in log book. Schedule and perform under Code Yellow immediately upon discovery by inspection or after notification.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup			1
253	Tilt Trailer		(Opt.)	1
353/357	Endloader		(Opt.)	1
371	Dump Truck			1
703	Water Tank	N/C	(Opt.)	1

MATERIALS

Sand
Sodium Chloride
Impact Attenuator Barrels
Ethylene Glycol
Miscellaneous Repair Parts

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Each	1.5 - 2.2	20.00

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE:

-- *Training Presentation (SS/TTP-19) WVDOH Maintenance Division 1981.*
-- *Impact Attenuator Log Book*
-- *Applicable Maintenance Manual published by Energy Absorption Systems, Inc.*

a. Hi-dro Systems Maintenance Manual

Recommendation: Mix a solution of 3.8 L (1 gal.) of water to 3.8 L (1 gal.) of anti-freeze (ethylene glycol). The anti-freeze solution may be mixed in the cell, but for larger volumes, it is more convenient to premix the solution in a large container (i.e., barrel or tank) and transport the mixture to the site.

b. Energite (Barrels System) Maintenance Manual

Recommendation: Mix one part sodium chloride to twenty parts dry sand by weight. The desirable moisture content is 5% or less. The maximum moisture content shall be 7%.

c. Hi-Dri Systems Maintenance Manual

d. Guardrail Energy Absorbing Terminal (G.R.E.A.T. System) Maintenance Manual

ALL ATTENUATOR TYPES

1. Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2. Determine the type of attenuator to be repaired and consult the appropriate references and follow the maintenance and repair methods stated therein.

3. Remove traffic control devices.

GENERAL NOTES:

-- Hand tools include brooms and shovels.
-- A supervisor of at least Transportation Crew Supervisor level or above that is familiar with attenuator systems will be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Jason T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 368

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **ROADWAY STRIPING (YELLOW)**

DESCRIPTION & PURPOSE:

The application of yellow, reflectorized painted Edge line, Center line and Barrier Lines to provide for lane delineation, driving lane boundaries, passing and no passing zones, and to improve safety.

PERFORMANCE CRITERIA:

Perform a minimum of one time yearly or otherwise as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Workers	6

EQUIPMENT

030	Centerline Machine		1
044	Sweeper, Trk. Mtd.		1
202/204	Pickup Truck		1
261	Flatbed Truck	(Opt.)	1

FLAGGERS INCLUDED (IF USED)

MATERIALS

Pavement Beads
Glass Beads

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
METRIC:	102 mm (Single Solid Line kilometers)	44.5 - 65.5	0.81
	4 In. (Single Solid Line Miles)	28.0 - 40.5	1.30

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ------ PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 12, WVDOH Maintenance Manual*

1. Operate paint train in accordance with Case D4 "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2. Sweep and blow areas to be painted.
3. Apply paint in accordance with Section 663 "Standard Specifications Roads and Bridges", current edition.

GENERAL NOTES:

-- The supervisor shall designate a member of the crew as leadperson to be in charge.

-- Measuring equipment must be calibrated and maintained.

-- Application rate must be checked to ensure proper application.

-- Two-lane, two-way road sections shall be 5 m (16 ft.) in width or greater to be eligible for center line and / or barrier line.

REPORTING NOTES:

-- IF FLAGGERS ARE USED FOR THIS ACTIVITY, REPORT AS PART OF THIS ACTIVITY.

-- Meter (footage) counters for all paint guns used during the day must be totaled and the sum divided by 1609 m (5,280 ft.) in order to accurately report kilometers (miles) of 102 mm (4 in.) single solid yellow line painted.

PLANNING NOTES:

-- 61 L (16 gal.) of paint per kilometer (mile) of 102 mm (4 in.) single solid yellow line.

-- 3 kg (6 lbs.) of glass beads per 3.8 L (1 gal.) of paint.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **369**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **ROADWAY STRIPING (WHITE)**

DESCRIPTION & PURPOSE:

The application of white, reflectorized painted Edge line, Lane Lines and Channelizing Lines to provide for lane delineation, driving lane boundaries and to improve safety.

PERFORMANCE CRITERIA:

Perform a minimum of one time yearly or otherwise as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Workers	6

EQUIPMENT

030	Centerline Machine		1
044	Sweeper, Trk. Mtd.		1
202/204	Pickup Truck		1
261	Flatbed Truck	(Opt.)	1

FLAGGERS INCLUDED (IF USED)

MATERIALS

Pavement Beads
Glass Beads

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
METRIC:	102 mm (Single Solid Line kilometers)	55.5 - 81.4	0.65
	4 In. (Single Solid Line Miles)	34.5 - 50.6	1.04

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ---- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 17, WVDOH Maintenance Manual*

1. Operate paint train in accordance with Case D4 "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2. Sweep and blow areas to be painted.
3. Apply paint in accordance with Section 663 "Standard Specifications Roads and Bridges", current edition.

GENERAL NOTES:

-- The supervisor shall designate a member of the crew as leadperson to be in charge.

-- Measuring equipment must be calibrated and maintained.

-- Application rate must be checked to ensure proper application.

-- Two-lane, two-way road sections shall be 5.5 m (18 ft.) in width or greater to be eligible for edge lines.

REPORTING NOTES:

-- IF FLAGGERS ARE USED FOR THIS ACTIVITY, REPORT AS PART OF THIS ACTIVITY.

-- Meter (footage) counters for all paint guns used during the day must be totaled and sum divided by 1609 m (5,280 ft.) in order to accurately report kilometers (miles) of 102 mm (4 in.) single solid white line painted.

PLANNING NOTES:

-- 61 L (16 gal.) of paint per kilometer (mile) of 102 mm (4 in.) single solid white line.

-- 3 kg (6 lbs.) of glass beads per 3.8 L (1 gal.) of paint.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Smeault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 381

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **BRIDGE REPAIR, MAINTENANCE AND CONSTRUCTION**

DESCRIPTION & PURPOSE:

This activity shall include all field work related to the maintenance, repair, and construction of bridges.

PERFORMANCE CRITERIA:

All work to be accomplished in accordance with plans or directions furnished by the Assistant District Engineer, Bridge. Any work significantly affecting the structural integrity of a bridge shall be restricted to a specialized District Bridge Repair Crew and may require additional technical supervision.

CREW SIZE

As required

EQUIPMENT

As required

FLAGGERS NOT INCLUDED

MATERIALS

As called for by plans, sketches and directions of Assistant District Engineer, Bridge or his representative.

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*

1. Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highway Construction and Maintenance Operations Manual".

2. Perform repair work or maintenance work in accordance with plans and/or appropriate West Virginia Division of Highways directives and policies and instructions of the Assistant District Engineer, Bridge.

3. Cleanup job site and properly dispose of any material removed from the structure.

4. Remove traffic control devices.

GENERAL NOTES:

-- Hand tools to include: Concrete and masonry tools, carpenter tools, shovels, picks, mattocks, bars, drills, tremie chutes, vibratory screed, sledge hammers, chipping hammers, scaffold planks and rigging, H.D. angle head grinders, wrenches, skill saw, ladders, gloves, welding hoods, jackets, etc.

-- All field personnel are working crew members.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

SAFETY REQUIREMENTS:

OSHA Standards and West Virginia Division of Highways Directives shall be adhered to concerning safety precautions both while on the job and enroute to and from.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 382

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **BRIDGE INSPECTION & ANALYSIS**

DESCRIPTION & PURPOSE:

The inspection and rating by structural analysis of any bridge structure to determine the existing conditions in order to obtain and/or update the safe load capacity, assure the safety of the structure for the traveling public, and assess any maintenance needs. Also the preparation of Bridge Inspection Reports.

PERFORMANCE CRITERIA:

Safety inspections and load ratings will be performed at the frequency and per the requirements of appropriate Division of Highways directives and policies.

CREW SIZE

Bridge Safety Inspectors	7
Highway Engineers	2
Office Assistants	1
TOTALS:	10

EQUIPMENT

125	Boat w/Motor & Trailer	N/C	1
202/204	Pickup Truck	(Opt.)	1
211	Van (Equipped)		1
221	Sedan		1
933/934	Underbridge Inspection Unit		1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE:

West Virginia Department of Highways Bridge Inspection Manual; AASHTO Manual for Maintenance Inspection of Bridges, National Bridge Inspection Standards, Bridge Maintenance Directives, Structural Directives. Chapter 11, WVDOH Maintenance Manual.

1. Place proper traffic control devices and station flaggers, if necessary, in accordance with the current "Traffic Control for Street and Highway Construction and Maintenance Operations Manual".

2. Perform appropriate field inspection in accordance with West Virginia Division of Highways policies and directives, and as dictated by the particular structure condition.

3. Remove traffic control devices.

4. Perform necessary analysis and complete inspection report in accordance with AASHTO Specifications and appropriate Division of Highways policy.

GENERAL NOTES:

-- See BMD-I85 for required equipment to be provided in all vans. This will include but not be limited to tapes, calipers, camera, chipping hammers, ladders, ropes, scaffold plank, safety equipment, chisels, binoculars, stencils, waders, shovels, calculators, programmable calculator for office analysis, etc.

-- All field personnel are working crew members.

-- Rigging and scaffolding may be required.

REPORTING NOTES:

-- Office Assistants' time for the preparation of inspection reports and stress analysis are to be charged to this activity.

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Lemaire DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 383

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **BRIDGE DESIGN**

DESCRIPTION & PURPOSE:

The engineering and drafting necessary to produce finished plans for repair, strengthening and replacement of bridges and incidental approach work.

PERFORMANCE CRITERIA:

Plans must be legible and in conformance with current West Virginia Division of Highways Standards, Specifications, Structural Directives, Bridge Maintenance Directives, Roadway Design Directives and AASHTO Specifications.

CREW SIZE

Engineer	1
Engineering Techn.	1
TOTALS:	2

EQUIPMENT

221	Sedan	1

MATERIALS

Film, Drafting Supplies

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE: ▒▒▒▒▒▒▒▒▒▒

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *AASHTO Standard Specifications for Highway Bridges; Design Directives; Structural Directives; Bridge Maintenance Directives; Standard Bridge Plans*

1. All design work to be performed in accordance with appropriate DOH policies and directives and AASHTO Specifications.

2. All design and plan work must be independently checked by competent qualified personnel.

GENERAL NOTES:

- Equipment to include programmable calculator, tape, camera, drafting equipment, surveying equipment, etc.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **384**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **CLEANING AND PAINTING**

DESCRIPTION & PURPOSE:

Cleaning and Painting of structural steel by either sandblasting or using hand or power tools to remove rust, scale loose, blistered, peeling or non-adherent paint, rust, etc., in preparation for the application of a specified paint system, and for the actual application of the specified paint system by either brushing, rolling or spraying. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

This work to be done prior to time that the existing paint system fails and at a minimum before the failure of the existing paint system has allowed the steel to experience section loss. Work to be done when temperature and humidity are within specification ranges.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

EQUIPMENT

264	Flat Truck w/Crane		1
269	Crew Cab - Tool		1
616	Compressor		1
	Sand Blasting Units	N/C	1
	Airless Paint Spray	N/C	1
	Generator	N/C	1

MATERIALS

Bridge Paint
Blasting Sand
Paint Thinner
Disposable Paint Suits

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*
Section 620 of the WVDOH Standard Specifications
BMD A 36-2 Dated 10-29-91

1) Place proper traffic control devices and station flaggers, if necessary, in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Rig scaffolding as needed. Place tarps to contain and collect dust and debris from the cleaning and painting operations.

3) Place booms in the waterway, downstream of the work site to collect any material that may get into the waterway.

4) Remove excessive rust scale from the steel using hand tools. Sand blast or hand clean steel as per Section 620 of the WVDOH Standard Specifications, Roads and Bridges, 1986 and as directed by the Assistant District Engineer, Bridge.

5) Paint all areas cleaned, or otherwise needing paint with an approved paint system in accordance with the Standard Specifications using either sprayer, brush or roller.

6) Clean up job site and properly dispose of all material removed from the structure. Remove scaffolding, tarps and boom.

7) Remove traffic control devices.

GENERAL NOTES:

-- Additional items required include sand blasting suit with helmet and air conditioner, scaffolding, tarps, booms, ladders, grinders, needle scaler, etc.
-- Due to the type of work and the amount of setup and cleanup time required, consideration should be given to a modified work schedule of 10-12 hours per day which will result in better productivity.
-- Prior to start-up of this Activity, coordination should be made with the District Safety Officer and the Department of Environmental Protection.
-- When sand blasting is required, the existing paint system is to be tested by MCST in accordance with Section 620.9 of the WVDOH Supplemental Specifications dated January 1, 1992. Waste material from the removal of lead based paint will require testing for the level of lead to determine proper disposal method.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Demeault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 385

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **REPAIR AND REALIGNMENT OF BEARING DEVICES**

DESCRIPTION & PURPOSE:

The resetting of rockers, anchor bolts, sole plates, masonry plates, trimming stingers, adjusting slotted holes and minor related backwall repairs. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

To be performed as directed by the Assistant District Engineer, Bridge or according to plans.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

EQUIPMENT

264	Flat Truck w/Crane	(Opt.)	1
269	Crew Cab - Tool		1
612	Compressor		1
631	Welder		1
634	Welding Truck		1
	Generator N/C	(Opt.)	1

MATERIALS

Portland Cement
Cement Additive
Sand
Misc. Steel
Anchor Bolts, Nuts, Washers

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Rig scaffolding as needed. Place proper size jacks and raise the structure as required.

3) Clean the bearing devices. Realign, adjust or repair gearing devices as required. Paint the bearing devices with an approved paint system. (See Reporting Notes below.)

4) Remove jacks, scaffolding, etc.

5) Clean up job site and properly dispose of all material removed from the structure.

6) Remove traffic control devices.

GENERAL NOTES:

-- Additional tools required may include various handtools, concrete and masonry tools, carpenter tools, paint brushes, bridge jacks, jack hammers, pneumatic drills, electric drills, cutting torches, air-arc torch, needle scaler, etc.

-- All field personnel are working crew members.

-- Extreme care should be taken to lift the structure without causing torsion in the structure's deck. Recommended procedure is to lift all beams together.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Spot sandblasting and painting to be reported as Activity 384.

-- Major backwall repairs to be reported as Activity 381.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Ormeault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **386**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **REPAIR/REPLACEMENT OF EXPANSION DAM SEALS**

DESCRIPTION & PURPOSE:

The installation of new elastomeric seals in existing sealed expansion joints to replace defective seals or cleaning and routing of expansion joints and resealing with silicone or hot-poured joint seal. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

This work is to be accomplished at the direction of the Assistant District Engineer, Bridge.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup		1
269	Crew Cab - Tool		1
521	Asphalt Kettle	(Opt.)	1
612	Compressor		1
	Sandblast. Unit N/C	(Opt.)	1
	Generator N/C	(Opt.)	1

MATERIALS

Elastomeric Expansion Joint Material
Liquid Adhesive Lubricant
Hot-poured Joint Seal
Silicone Joint Seal
Anchor Bolts, Nuts, Washers

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*
Sect. 708.3 and 708.4 WVDOH Standard Specifications, Roads and Bridges

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Replace Elastomeric Seal.

-- Remove existing elastomeric seal from joint.

-- Clean joint and apply joint liquid adhesive lubricant.

-- Install properly sized joint seal as recommended by manufacturer.

3) Reseal with Hot-Pour or Silicone Sealer.

-- Clean and route the joint.

-- Place hot-poured or silicone sealer.

4) Clean up the area and remove traffic control.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Special installation tools may be required. Refer to manufacturer's recommendations.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 387

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SEALING OF CONCRETE BRIDGE DECKS**

DESCRIPTION & PURPOSE:

Placing a protective surface treatment on bridge decks to prevent the penetration of chlorides. Sealing open cracks with epoxy or with modified methacrylate. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

New bridge decks which have not received a protective surface treatment, all concrete bridge decks, in good condition that do not have an LMC overlay or have not been treated for a period of 1 - 3 years, (depending on deck condition) should receive a protective surface treatment. This activity must be performed in dry weather, when not threatened by rain.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup		1
269	Crew Cab - Tool		1
612	Compressor		1
	Sand Blasting Unit	N/C	1
	Trailer Mtd. Sprayer	(Opt.)	1

MATERIALS

Linseed Oil / Mineral Spirits
Concrete Sealer (Silane)
Modified Methyacrylate
(Sika Pronto 19)
Epoxy Crack Sealer (Sylcrete)
Blasting Sand

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Protective Surface Treatment

- Clean and sweep the deck area. Use sandblasting unit to remove deck contaminates such as oil, grease, paint, bituminous material.
- When using linseed oil, mix with mineral spirits at a mixture of 50% each. It shall be applied in two (2) applications.
- First application at the rate of 33 m^2 (360 $ft.^2$) per 3.8 L (1 gal.) Allow first coat to dry thoroughly.
- Second application at the rate of 56 m^2 (600 $ft.^2$) per 3.8 L (1 gal.).
- The material can be sprayed on the deck with hand sprayer or applied with rollers or squeegees.
- When using other sealers, apply per the manufacturer's specifications or as directed by the Assistant District Engineer, Bridge.
- Allow sealer to dry.

3) Sealing Cracks

- Clean and sweep the deck area. Remove dirt from cracks using compressed air.
- Pour sealant (epoxy or methacrylate) into cracks using plastic squeeze bottles.

4) Remove traffic control.

GENERAL NOTES:

- All field personnel are working crew members.
- Hand tools to include squeegee, hand rollers, shovels, hand sprayer, etc.

REPORTING NOTES:

- Sealing concrete parapets may be performed under this activity as required.
- Report flaggers under Activity Code 813.

PLANNING NOTE:

- Air and deck temperature should be 10° C (50 °F)or higher when using linseed oil and mineral spirits.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Smeault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 388

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SEALING OF BRIDGE CONCRETE SUBSTRUCTURE UNITS**

DESCRIPTION & PURPOSE:

The purpose of this activity is to furnish effective protection to seal out moisture and prevent penetration of corrosive chemicals into concrete units by filling cracks with an approved crack mender, epoxy injection of cracks, and/or sealing surfaces with an approved concrete sealer/coating. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

This activity will be performed, in particular, on bridge seats and backwalls and on pier caps; however, may also be performed on any part of a bridge substructure as determined necessary by the Assistant District Engineer, Bridge. Determine the type of material to be utilized, and ensure availability/acceptability of the material prior to scheduling this activity.

CREW SIZE

Trans. Workers	4

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup			1
269	Crew Cab - Tool			1
332	Truck Crane		(Opt.)	1
564	Epoxy Inject. Mach.	N/C		1
612	Compressor			1
805	Hydblaster	N/C	(Opt.)	1
933/934	Underbridge Insp. Unit		(Opt.)	1
	Generator	N/C	(Opt.)	1
	Sand Blast Unit	N/C	(Opt.)	1

MATERIALS

Linseed Oil / Mineral Spirits
Epoxy Resin Protective Coating
Concrete Sealer (Silane)
Concrete Crack Mender / Filler
Sand

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*
Sect. 707, WVDOH Standard Specifications, Roads & Bridges, latest edition.

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Rig scaffolding, as required.

3) Prepare affected surfaces, as required, and/or per manufacturer's specifications.

4) Apply approved concrete sealer/coating to concrete surfaces per manufacturer's specifications and/or approved concrete mender/filler and/or approved epoxy resin per manufacturer's specifications.

5) Remove scaffolding.

6) Clean job site.

7) Remove traffic control devices.

GENERAL NOTES:

-- This activity should be performed only after bridge has been thoroughly flushed and washed, and has dried.

-- Hand tools to include scaffold, mixing drill/paddle, pails, brushes, brooms, hand sprayers, gloves, safety masks/respirators, ladders, etc.

-- All field personnel are working crew members.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Report Bridge Washing under Activity Code 389.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 389

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **BRIDGE WASHING**

DESCRIPTION & PURPOSE:

The cleaning of all types of bridges by hand and washing with high pressure water to remove debris, dirt, abrasives and de-icing chemicals to prevent deterioration. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

Each structure should be washed and cleaned a minimum of once per year. Bridge washing should commence at the conclusion of the snow removal and ice control season.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

MATERIALS

Water

EQUIPMENT

203	Crew Cab Pickup		1
253	Tilt Trailer	(Opt.)	1
261	Flatbed Truck		1
353/357	Endloader	(Opt.)	1
371	Dump Truck		1
705	Water Tank (3000 Gal)	N/C	1
	Generator	N/C	1
	High Pressure Pump		1
	Submersible Pump		1
	Tanker Tk. 5000 Gal	(Opt.)	1

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Open all scuppers and remove dirt/debris from bridge deck -- see Reporting Notes below.

3) Thoroughly wash steel beams, truss members, bridge seats, bearing areas, etc.

4) Remove traffic control devices.

GENERAL NOTES:

-- Special emphasis should be placed on all areas beneath expansion joints.

-- Hand tools to include ladders, scaffolds, snakes, shovels, high pressure waterhose and nozzle, etc.

-- Where possible use pump to obtain water from stream for flushing.

-- All field personnel are working crew members.

-- Air powered pump and compressor may be substituted for the generator and electric pump.

-- This activity should be performed by County/Expressway forces.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Report Opening of Drainage Systems under Activity Code 390.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Ducault DATE JUN 08 1995

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: OPENING OF BRIDGE DRAINAGE SYSTEMS

DESCRIPTION & PURPOSE:

The inspection, opening and flushing of bridge drainage systems including scuppers, piping and drainage troughs. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

Each structure should have the drainage system opened once a year as part of Bridge Washing Activity. The drainage system should also be cleaned as required whenever problems are reported in inspection reports, citizens complaints, etc.

CREW SIZE

Trans. Workers	3

EQUIPMENT

202/204	Pickup	1
813	Culvert Cleaner	1

FLAGGERS NOT INCLUDED

MATERIALS

Water

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Inspect, open and flush the drainage system including scuppers, piping, and drainage troughs.

3) Remove traffic control devices.

GENERAL NOTES:

-- Hand tools to include ladders, scaffolds, snakes, high pressure waterhose and nozzle, wrenches, etc.

-- The noted equipment is that required for this activity when it is not performed in conjunction with the Bridge Washing Activity.

-- All field personnel are working crew members.

-- This activity should be performed by County/Expressway forces.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

-- Repair of Drainage Systems to be reported under Activity Code 381.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Demeault DATE JUN 08 1995

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SCOUR / EROSION & RIPRAPPING AT BRIDGES**

DESCRIPTION & PURPOSE:

The purpose of this activity is to furnish effective protection against scour and/or erosion by placing a blanket/mattress of stone or other suitable material in the form of riprap. This work is to be done as preventative maintenance on existing structures.

PERFORMANCE CRITERIA:

This activity will be performed around headwalls, wingwalls, abutments, piers, under bridges, and along bridge waterway embankments. Determine the source and ensure acceptability/availability of necessary material prior to scheduling this activity.

CREW SIZE

Trans. Workers	4

FLAGGERS NOT INCLUDED

EQUIPMENT

203	Crew Cab Pickup		1
253	Tilt Trailer	(Opt.)	1
303	Track Loader	(Opt.)	1
337	Crane w/Clamshell	(Opt.)	1
350	Backhoe w/Loader	(Opt.)	1
377	Tandem Dump Truck		1
410	Hyd. Excavator	(Opt.)	1
	Track Mtd. Hyd. Hoe	(Opt.)	

MATERIALS

Riprap Material

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hour		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 11, WVDOH Maintenance Manual*
Sect. 218.4, WVDOH Standard Specifications
BMD-L184 - Hydraulic Engineering Circular No. 11

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.
2) Install riprap revetment per Design Plans and/or at the direction of the Assistant District Engineer, Bridge.
3) Clean/restore job site.
4) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include backfill tampers, rakes, brooms, shovels, sledgehammers, picks, etc.
-- Riprap material should be hard sandstone or limestone and shall be largely equidimensional, angular, and generally ranging in size between 0.03m^3 (1 ft.^{3}) and 0.76 m ^{3} (1 yd.^{3}) or as sized by proper design in accordance with HEC-11.
-- DNR/DEP approval to be obtained prior to any work in streams.

* Hydraulic track mounted hoe may be rented from the private sector - Purchase Order Contract.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- Report significant landscaping, seeding, mulching under Activity Code 410.
-- Report significant sedimentation control, as required per current directives under Activity Code 410.
-- All excavation of channel and/or slopes required for proper installation of riprap will be reported as part of this activity.

PLANNING NOTES:

-- Riprap material may be obtained by Purchase Order Contract, either picked up by DOH or delivered by vendor; suitable native material may be substituted.
-- Purchase riprap material - 1.36 Mg (1.5 Ton) per 0.76 m^3 (1 yd.^{3}).

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 401

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: Asphalt Pavement Grinding

DESCRIPTION & PURPOSE:

Removal of pavement with a pavement grinder to remove humps, correct drainage problems, or prepare pavement for small purchase order contracts. This operation may also be performed to texture small areas of pavement surface.

PERFORMANCE CRITERIA:

Perform during any season as directed by the Assistant District Engineer, Maintenance.

CREW SIZE	
Trans. Crew Supervisor	1
Trans. Workers	3
Total	4

EQUIPMENT			
040/041	Sweeper	(Opt.)	1
203	Crew Cab Pickup		1
253	Trailer		1
353/357	Endloader	(Opt.)	1
351	Skid Steer Loader/Grinder		1
371/377	Dump Truck		1
546	LeeBoy	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
SF	1500	0.02

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

(Revised4/08)

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highways Construction and Maintenance Operations", current edition.
2) Mark areas to be removed.
3) Grind surface to desired elevation.
4) Clean and sweep area, if necessary.
5) Haul material to stock site or pre-selected area for re-use.
6) Remove traffic control devices.

GENERAL NOTES:

- All field personnel are working crew members.

REPORTING NOTES:

Report flaggers under Activity Code 813.

RECOMMENDED BY: D. Kyle Holmes DATE 6/23/08

APPROVED BY: [signature] DATE 6/23/08

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **SWEEPING**

DESCRIPTION & PURPOSE:

Mechanical or manual sweeping of roadway curb and gutter sections, medians, bridges and other appurtenances to remove dirt and debris; and to maintain proper drainage, appearance and safety.

PERFORMANCE CRITERIA:

Perform this activity when accumulated dirt and debris creates a hazard or when drainage is disrupted. Normally this activity will be performed just before and after the SRIC season.

CREW SIZE

Trans. Workers	3

EQUIPMENT

040/041	Sweeper		1
042	Sweeper, Street	(Opt.)	1
202/204	Pickup Truck		1
353/357	Endloader	(Opt.)	1
371	Dump Truck		1

FLAGGERS NOT INCLUDED

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations Manual", current edition.

2) Sweep and properly dispose of material.

3) Remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include shovels, brooms, etc.

-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Duneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 403

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **TUNNEL MAINTENANCE**

DESCRIPTION & PURPOSE:

Repair and maintenance to the physical features of tunnel including repair to concrete surfaces, handrails, tile walls, paved gutters and to the tunnel electrical, communications, illumination, ventilation and traffic signal systems to insure continuous operation of all systems and the safety of the traveling public. To include communications center base station and direct-line facilities for the purpose of receiving and transmitting orders and information between Division offices, field personnel and direct communications with operator patrolling tunnel. This activity to include the patrolling and reporting of discrepancies found in the physical appearance of the tunnel for the future work scheduling. Also to include the inspection of traffic patterns and inform radio dispatcher of any problems which may exist.

PERFORMANCE CRITERIA:

Perform this activity as necessary to restore spalled or broken concrete or damaged handrail, and maintain traffic through tunnel. Emergency operations are to be initiated immediately in the event of fire, accident or breakdown in tunnel ventilation system. (Continued)

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	3
TOTAL:	4

FLAGGERS NOT INCLUDED

EQUIPMENT

202/204	Pickup		1
371	Dump Truck	(Opt.)	1
813	Culvert Cleaner	(Opt.)	1
930	Aerial Platform	(Opt.)	1

MATERIALS

Sand
Fine Aggregate
Portland Cement Grout
Cement Additive
Fluorescent Lights, Signal Light Repair Parts, Replacement Items for Electrical System
Tile, Dowels, Wire Mesh, Tubes of Grease

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

PERFORMANCE CRITERIA (CONTINUED):

Electrical systems will be checked a minimum of once daily as follows: carbon monoxide recorder, the testing of telephones and the battery emergency system. Fan bearings will be lubricated every two months. Repair and perform other maintenance as needed on fan units, signal lights, illuminating lights. All deficiencies found in any system should be corrected at once. The assigned operator shall inspect the tunnel at half-hour intervals to see that traffic is being maintained and report any deficiencies to the dispatcher so that appropriate communications can be initiated to the district headquarters and Charleston Control. Paved gutters are to be cleaned with high pressure water, a minimum of once a month. Also a daily log should be maintained on all essential communications into and out of base station.

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with the current "Traffic Control for Street and Highways Construction and Maintenance Operations", current edition.

2) Perform work required.

3) Remove traffic control devices.

GENERAL NOTES:

-- Hand tools will include necessary specialized tools.

-- All field personnel are working crew members.

-- One crew member will be a qualified electrician.

-- Transportation Crew Supervisor is in charge of all tunnel activities.

-- An operator will be scheduled for each shift.

-- One pickup will perform duty three shifts per day.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **404**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **EMERGENCY SERVICES**

DESCRIPTION & PURPOSE:

The cleanup of debris such as fallen trees, branches, rocks and other obstructions constituting safety, health and/or unsightly conditions; erection of barricades and signs; detail assessment of damages incurred and other related tasks resulting from highwinds, flooding, or catastrophic occurrences.

PERFORMANCE CRITERIA:

To be performed during an emergency or disaster whether declared or undeclared, to restore traffic on state maintained highways. An approved authorization may or may not be available to fund this work.

CREW SIZE

As required

EQUIPMENT

As required

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: --- PERFORMANCE: ▒▒▒

(Revised 3/95)

WORK METHODS:

FOR DETAIL ESTIMATE OF DAMAGES:

1) Establish identifiable beginning point, usually road junction, with survey meter setting on 0 miles.
2) Locate by milepost from the beginning point the area damaged, its beginning and ending milepost.
3) By measured or estimated data, establish work items and quantities required to restore traffic. This is temporary work.
4) By measured or estimated data, establish work items and quantities required to replace in kind as permanent work.
5) Take pictures of damaged area; reference pictures to Damage Survey Report Number.
6) The estimated cost of temporary and permanent work must be kept realistic. If you do not agree with the item unit cost or total allowance made by the FHWA inspector, indicate your disagreement in space provided on the inspection report.

FOR ERECTION OF EMERGENCY SIGNING AND/OR BARRICADES:

1) Barricades, signs and other devices should be available at County and Subheadquarters.
2) Load traffic control devices into pickup truck and proceed to location.
3) Erect traffic control devices in compliance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
4) Leave traffic control devices until the area is cleared and safe for travel.

FOR DEBRIS CLEANUP AND/OR TEMPORARY ROAD REPAIRS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Perform any work necessary to restore roadway to a passable condition to allow for temporary travel until permanent repairs can be performed under other appropriate activities.
3) Remove traffic control devices.

GENERAL NOTES:

-- Notify Assistant District Engineer, Maintenance of damaged guardrail, signs, structures or appurtenances so that repair can be planned and carried out by appropriate crews.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dimeault DATE JUN 08 1995

FORM OM-30 West Virginia Division of Highways ACTIVITY NO. **405**
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **STEEL PILING INSTALLATION**

DESCRIPTION & PURPOSE:

The installation by DOH forces of piling by predrilling and/or driving steel members for the purpose of providing lateral support of the roadway slope or for installation of bridge sub-structure.

PERFORMANCE CRITERIA:

Piling shall be driven to line grade and batter as shown on the plans and as directed by the Assistant District Engineer, Maintenance. Removal of vegetation will be performed prior to performing this activity.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	4
TOTAL:	5

FLAGGERS NOT INCLUDED

MATERIALS
Lumber
Steel Piling
Welding & Cutting Material
Select Borrow Material

EQUIPMENT

203	Crew Cab Pickup		1
253	Tilt Trailer		1
301	Tractor Dozer	(Opt.)	1
332	Truck Crane		1
350	Loader w/Backhoe		1
371	Dump Truck		1
410	Hyd. Excavator	(Opt.)	1
631	Welder		1
	Foundation Drill Rig*		

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Feet	188 - 275	0.16

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: 

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highways Construction and Maintenance Operations", current edition.
2) Predrill and/or drive piling.
3) Cut and splice to grade elevations as shown on the plans.
4) Place lagging and backfill with select borrow.
5) Clean area and dispose of waste.
6) Remove traffic control devices.
7) Restore roadway.

GENERAL NOTES:

-- All field personnel are working crew members.

-- Hand tools to include rakes, brooms, shovels, etc.

-- *The Foundation Drill Rig may be rented by Purchase Order Contract.

-- Do not leave unsightly piles projecting above roadway level without installing guardrail. Cut excess pile off.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: _____ DATE 6/16/2011

APPROVED BY: _____ DATE 6-16-2011

FORM OM-30 West Virginia Division of Highways ACTIVITY NO. **406**
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **UNCLASSIFIED EXCAVATION**

DESCRIPTION & PURPOSE

The excavation of material such as earth, rock, shale, chert, etc., for the removal of minor slides, widening of roadways, grade changes, roadway cuts or for the extraction of native material.

PERFORMANCE CRITERIA

Work is to be performed in accordance with Engineering Plans as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	7
TOTAL:	8

FLAGGERS NOT INCLUDED

MATERIALS

Dynamite
Caps
Cord

EQUIPMENT

203	Crew Cab Pickup			1
253	Tilt Trailer		(Opt.)	1
301	Tractor Dozer		(Opt.)	1
303	Track Loader		(Opt.)	1
310	Track Excavator		(Opt.)	1
337	Truck Crane w/Clam		(Opt.)	1
350	Loader w/Backhoe		(Opt.)	1
353/357	Endloader			1
371/377	Dump Truck			1
400/401	Grader		(Opt.)	1
410	Hyd. Excavator		(Opt.)	1
591	Roller			1
616	Air Compressor		(Opt.)	1
653	Air Drill		(Opt.)	1
	Jack Hammer	N/C	(Opt.)	1

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Tons	273 - 401	0.18

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highways Construction and Maintenance Operations", current edition.

2) Install pollution / erosion control as required per current directives.

3) If drilling and shooting required:
   A) Remove overburden from rock.
   B) Drill holes, space as directed.
   C) Check and clear the area for personnel and equipment in accordance with proper safety procedures.
   D) Shoot rock.

4) Remove and load material; stabilize area in accordance with engineering plans.

5) Haul to fill area and dump.

6) Spread material at fill area and compact.

7) Upon completion of excavation, dress all disturbed areas and reseed as required

8) Adjust and/or remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Explosive material to be handled by certified explosive handlers.
-- Hand tools to include blasting machine, galvanometer, tamping sticks, rakes, brooms, shovels, etc.
-- Number of trucks required will be determined by haul distance. Use rock wagons, if available, when hauling rock, otherwise line truck bed with timbers and/or plywood.
-- DNR/DEP approval to be obtained prior to any work in streams.

SAFETY

Recommended blasting safeguards are:

1) Post guards on all access roads to the blasting area.

2) A signal system should be established. The first warning signal to clear area should be given 5 minutes prior to blast. At one minute prior to blast, a second signal should be given, then a third signal just prior to blasting should be given. Often used for third signal is the blaster yelling "Fire in the Hole" three times before blasting.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- Report installation of pollution/erosion/sedimentation control devices under Activity Code 410.

PLANNING NOTES:

-- **0.1 lbs. of explosives per 1 cubic yd. of excavation.**
-- **A minor slide is considered to be one that will require less than two days to correct using the equipment listed in this standard.**

RECOMMENDED BY: _____ **DATE** 12/13/11

APPROVED BY: _____ **DATE** 12/14/11

FORM OM-30

ACTIVITY NO. 407

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **NON-ANNUAL PLAN EMPLOYEE HOURS**

DESCRIPTION & PURPOSE:

To be used for the planning of Annual Plan employee hours that will be utilized in Non-Annual Plan funded work.

Actual accomplishments will be reported to the applicable activity.

FOR PLANNING PURPOSES ONLY.

PERFORMANCE CRITERIA:

Non-Routine Maintenance type work is to be performed at the direction of the Assistant District Engineer, Maintenance.

CREW SIZE

As required

EQUIPMENT

As required

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

REPORTING NOTES:

-- Activity 407 for planning purposes only.

-- Do not report expenditures to Activity 407.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dineault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **408**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **MISCELLANEOUS MAINTENANCE**

DESCRIPTION & PURPOSE:

This activity is for the reporting of activities that are seldom used and have minimal impact on total budget costs. The following activities are examples of maintenance tasks that can be charged to this activity.

1) Dust Pallative Application.
2) Install Pressure Relief Joint.
3) Mudjacking of Existing Pavements.

PERFORMANCE CRITERIA:

The specific activity will be performed as directed by the appropriate authority.

CREW SIZE

As required

EQUIPMENT

As required

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Perform work as directed by the appropriate authority.

3) Remove traffic control devices.

4) Dust pallative application consists of using 1 operator, 1 dump truck, and 1 water tank to apply a mixture of 1 part lingo sulfonate and 4 parts water to unpaved roadways for dust control.

GENERAL NOTES:

-- Dust control is generally spot control near homes but may be done on entire road.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 409

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **PLACING PCC**

DESCRIPTION & PURPOSE:

Placing Portland Cement Concrete with or without reinforcing steel to construct new roadway, drainage or bridge structures.

PERFORMANCE CRITERIA:

Perform in accordance with plans and as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Workers	5

FLAGGERS NOT INCLUDED

MATERIALS

Course Aggregate
Transit Mix Concrete
Cement
Cement Additive
Sand
Form Lumber
Reiforcing Steel

EQUIPMENT

202/204	Pickup Truck		1
253	Tilt Trailer		1
350	Loader w/Backhoe		1
371	Dump Truck		1
580	Concrete Mixer	N/C	1
	Concrete Vibrator	N/C	1
	Water Pump	N/C	2
	Generator	N/C	1

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
METRIC:	cubic meter	2.87 - 4.2	10.5
	Cubic Yards	3.8 - 5.5	8.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapters 8 and 11, WVDOH Maintenance Manual*
Sect. 680, WVDOH Standard Specifications, Roads and Bridges, latest edition

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.
2) Stake out in accordance with plans.
3) Excavate and place form if required - work to grade.
4) Place reinforcement if required.
5) Place concrete and vibrate.
6) Finish concrete.
7) Place curing compound.
8) Allow to cure.
9) Remove forms if required and finish surface.
10) Adjust and/or remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include concrete buggy, concrete finishing tools, hand spray, power saw, etc.
-- The supervisor shall designate a member of the crew as leadperson who will be in charge.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- 0.68 Mg (0.75 Tons) of sand per 0.76 m^3 (1 $yd.^3$) of concrete.
-- 0.91 Mg (1 Ton) of coarse aggregate per 0.76 m^3 (1 $yd.^3$) of concrete.
-- 6 bags of cement per 0.76 m^3 (1 $yd.^3$) of concrete or as directed by the Assistant District Engineer, Maintenance.
-- 91 kg (200 lbs.) of reinforcing steel per 0.76 m^3 (1 $yd.^3$) of concrete.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **410**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **EROSION / POLLUTION CONTROL**

DESCRIPTION & PURPOSE:

Installation of pollution / erosion control devices or the performance of pollution/erosion control measures on or along the highway, at Division of Highways facilities or at other authorized locations. Examples are: sedimentation; chemical spill containment and cleanup; sodium chloride run-off correction; seeding / mulching for the sole purpose of erosion control.

PERFORMANCE CRITERIA:

This activity to be performed whenever there is an existing or a potential pollution/erosion control situation.

CREW SIZE

As required

EQUIPMENT

As required

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Section 642, WVDOH Standard Specifications Roads and Bridges*
Chapter 4, Section 5, WVDOH Maintenance Manual
Project Pollution Control Plan where applicable
Emergency Response Guidebook

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **411**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **HAULING MATERIALS - PREMIX AND STONE**

DESCRIPTION & PURPOSE:

Hauling premix or stone to job sites, where haul time *exceeds* one hour.

This activity established to reduce distorted productivity data for those organizations having excessive haul distances from premix/stone suppliers.

PERFORMANCE CRITERIA:

Material hauling between sites that does not exceed the one hour limit is to be charged to the applicable activity for which the materials are designated.

DO NOT USE FOR INVENTORY OR STOCKPILING -- SEE ACTIVITY 814

CREW SIZE

Trans. Worker	1

EQUIPMENT

371	Dump Truck		1
377	Tandem Dump	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

	UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
METRIC:	kilometers	181 - 266	0.03
	Miles	113 - 165	0.05

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

GENERAL NOTES:

1) All field personnel are working crew members.

2) Number of trucks and operators required will be determined by haul distance and quantity to be used.

REPORTING NOTES:

-- Do not charge to this activity when haul time is *less* than one hour.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: James T. Deneault DATE JUN 08 1995

FORM OM-30 West Virginia Division of Highways ACTIVITY NO. 412
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: EMBANKMENT STABILIZATION - DOH

DESCRIPTION & PURPOSE:

The excavation or placement of material such as earth, rock, shale, chert, etc., for embankment stabilization in the correction of major slides or slips.

PERFORMANCE CRITERIA:

Work is to be performed by DOH forces in accordance with Engineering Plans as directed by the Assistant District Engineer, Maintenance.

CREW SIZE

Trans. Crew Supervisor	1
Trans. Workers	7
TOTAL:	8

FLAGGERS NOT INCLUDED

MATERIALS

As required

EQUIPMENT

203	Crew Cab Pickup			1
253	Tilt Trailer		(Opt.)	1
301	Tractor Dozer		(Opt.)	1
303	Track Loader		(Opt.)	1
310	Track Excavator		(Opt.)	1
337	Truck Crane w/Clam		(Opt.)	1
350	Loader w/Backhoe		(Opt.)	1
353/357	Endloader			1
371/377	Dump Truck			1
400/401	Grader		(Opt.)	1
410	Hyd. Excavator		(Opt.)	1
591	Roller		(Opt.)	1
616	Air Compressor		(Opt.)	1
653	Air Drill		(Opt.)	1
	Jack Hammer	NC	(Opt.)	1

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Tons	273- 401	0.18

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
——	——	——	——	■	■	■	■	■	■	——	——

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: Chapter 09, WVDOH Maintenance Manual

1) Place proper traffic control devices and station flaggers in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.

2) Install pollution/erosion control as required per current directives.

SLIDE AREA

A) Cut all trees and branches to proper length; remove from site.
B) If rock that is too large to move with available equipment, break into manageable pieces with hoe ram or drill and shoot. If necessary to drill and shoot:
   1) Remove overburden from rock.
   2) Drill holes, space as directed.
   3) Check and clear the area for personnel and equipment in accordance with proper safety procedures.
   4) Shoot rock.
C) Remove and load slide material.
D) Dispose of material in approved areas; spread and compact. Do not dispose of material where it will obstruct ditch line or overload slopes and cause a slip.
E) Stabilize area in accordance with engineering plans.

SLIP AREA

A) Remove unsuitable/unstable material from slip area and prepare area for selected method of repair in accordance with engineering plans.
B) Purchase or select appropriate fill material and haul to site.
C) Place/spread material at fill area and compact.

3) Grade and shape area as required.

4) Upon completion of repair, dress and reseed all disturbed areas as required.

5) Restore roadway surface under appropriate roadway surface type activity.

6) Adjust and/or remove traffic control devices.

GENERAL NOTES:

-- All field personnel are working crew members.
-- Hand tools to include shovels, rakes, etc.
-- Explosives to be handled by certified personnel only.
-- Hand tools to include blasting machine, galvanometer, tamping sticks, shovels, etc.
-- Number of trucks required will be determined by haul distance. Use rock wagons, if available, when hauling rock, otherwise line truck bed with timbers and/or plywood.
-- DNR/DEP approval to be obtained prior to any work in streams.

SAFETY

Recommended blasting safeguards are:

1) Post guards on all access roads to the blasting area.

2) A signal system should be established. The first warning signal to clear area should be given 5 minutes prior to blast. At one minute prior to blast, a second signal should be given, then a third signal just prior to blasting should be given. Often used for third signal is the blaster yelling "Fire in the Hole" three times before blasting.

REPORTING NOTES:

-- Report flaggers under Activity Code 813.
-- Report installation of pollution/erosion/sedimentation control devices under Activity Code 410.

PLANNING NOTES:

-- 0.1 lbs. of explosives per 1 cubic yd. of excavation
-- A major slide or slip is considered to be one that will require more than two days to correct using equipment listed in this standard.

RECOMMENDED BY: W Kyle Stallings DATE 6/16/2011

APPROVED BY: _____ DATE 6-16-2011

FORM OM-30 West Virginia Division of Highways Maintenance Division ACTIVITY NO. 413

PERFORMANCE STANDARDS

ACTIVITY NAME: EMBANKMENT STABILIZATION - CONTRACT

DESCRIPTION & PURPOSE:

Expenses (invoices) associated with the use of contractors or other outside vendors hired to excavate or place material in the performance of embankment stabilization.

PERFORMANCE CRITERIA:

As directed by the Assistant District Engineer – Maintenance

CREW SIZE

NA

EQUIPMENT

NA

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Dollars		

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
-----	------	------									

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: [redacted]

REPORTING NOTES:

This activity designed to gather the invoice expenses associated with all contracted maintenance involving embankment stabilization.

Examples of work to be reported under this Activity include, but are not limited to:

Pre-drilling for steel piling installation
Soil Nail Installation
Installation of gabions
Segmental wall construction
Construction of rock buttresses
Geotextile Soil Reinforcement
Underdrain Installation

RECOMMENDED BY: W Kyle Stollings DATE 6/16/2011

APPROVED BY: _____ DATE 6-16-2011

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 414

PERFORMANCE STANDARDS

ACTIVITY NAME: OIL & GAS ROAD POLICY
ENCROACHMENT PERMITTING

DESCRIPTION & PURPOSE:

To perform all tasks required to process, evaluate, and review applications, agreements, and bonding requirements as per the WVDOH Oil and Gas Road Policy.

PERFORMANCE CRITERIA:

To be performed within the time frames set forth in the WVDOH Oil and Gas Road Policy.

CREW SIZE

As required.

EQUIPMENT

As required.

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
———	———	———	———	———	———	———	———	———	———	———	———

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■■■■

WORK METHODS:

WVDOH Oil and Gas Road Policy, dated February 1, 2011, and subsequent revisions.

Manual on rules and regulations for constructing driveways on state highway right-of-way.

Oil and Gas Permitting Manual.

GENERAL NOTES:

This activity applies only to gas and oil drilling projects.

Pipelines for gas transmissions are handled under existing encroachment permitting procedures.

REPORTING NOTES:

All project data sheets and other documents are to have the district permit number included on them and be retained in the district permit files.

Planning Notes:

All reviews to be performed within the time frames set forth in commissioner's oil and gas policy date February 1, 2011.

RECOMMENDED BY: W Kyle Stollings DATE 6/16/2011

APPROVED BY: _____ DATE 6-16-2011

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 415

PERFORMANCE STANDARDS

ACTIVITY NAME: OIL & GAS ROAD POLICY PERMIT INSPECTIONS & ADMINISTRATION

DESCRIPTION & PURPOSE:

To perform periodic special inspections of roads covered by encroachment permits used for hauling to and from well sites and review roads upon notification of completion by the permittee.

PERFORMANCE CRITERIA:

This activity is to include all expenses incurred from issuance of permit to acceptance of completed project.

CREW SIZE

As required.

EQUIPMENT

As required.

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: [redacted]

WORK METHODS:

WVDOH Oil and Gas Road Policy, issued February 1, 2011, and subsequent revisions.

Manual on rules and regulations for constructing driveways on state highway right-of-way.

Oil and Gas Permitting Manual.

GENERAL NOTES:

Inspection shall include state owned local service road designated as one or more state owned Roads used for the delivery and removal of drilling materials and drilling equipment to/from the site or location of one or more of permittee's gas and well pad locations.

REPORTING NOTES:

All inspections are to be documented with the applicable permit number included and the original documents sent to the district permit office to be filed in the permit file.

Planning Notes:

Periodically and when notified for completion.

RECOMMENDED BY: W Kyle Stollings DATE 6/16/2011

APPROVED BY: _____ DATE 6-16-2011

FORM OM-30 | West Virginia Division of Highways Maintenance Division | ACTIVITY NO. 416

PERFORMANCE STANDARDS

ACTIVITY NAME: EMERGENCY / COOPERATIVE OIL & GAS ROAD REPAIR

DESCRIPTION & PURPOSE:

To make emergency road repairs when permittee is unable/unwilling to make repairs.

PERFORMANCE CRITERIA:

To be performed when required by District Maintenance Engineer.

CREW SIZE

As required.

FLAGGERS IF NEEDED

EQUIPMENT

As required.

MATERIALS

As required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

WVDOH Maintenance Manual Chapters 04, 06, 07 and 08.

WVDOH Standard Specifications Roads and Bridges, current edition.

GENERAL NOTES:

Activity is to be performed when conditions require immediate repair for the safety of the public.

All field personnel are working crew members.

REPORTING NOTES:

Copies of all MT-12's to be submitted to district permit office to be included in permit file.

Hand tools to include rakes, shovels, brooms, etc.

Planning Notes:

Report flaggers used on this activity to Activity No. 416.

Report Erosion/Pollution control measures as Activity No. 416.

RECOMMENDED BY: W Kyle Stollings DATE 6/16/2011

APPROVED BY: _____ DATE 6-16-2011

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **MOUNTING/DISMOUNTING ATTACHMENTS TO EQUIPMENT FOR TEMPORARY USE**

DESCRIPTION & PURPOSE:

All parts and labor expenses associated with the mounting and dismounting equipment attachments for temporary use.

PERFORMANCE CRITERIA:

This activity is to be used by maintenance personnel when mounting and dismounting equipment attachments for temporary use.

CREW SIZE

(As Required)

EQUIPMENT

(As Required)

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

REPORTING NOTES:

- This activity is designed to capture the expenses associated for mounting/dismounting attachments to equipment for temporary or seasonal use. Cost of this Activity is expended to the ED number.

RECOMMENDED BY: _____ DATE 8/26/08

APPROVED BY: _____ DATE 8/29/08

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 542

PERFORMANCE STANDARDS

ACTIVITY NAME: **EQUIPMENT TRANSPORTING - ALL**

DESCRIPTION & PURPOSE:

All expenses incurred in the transportation of equipment.

PERFORMANCE CRITERIA:

This activity is to be used by maintenance personnel for costs associated with transportation of equipment to or from the field and to or from the District pool. Costs associated with picking-up and/or delivery of new equipment is to be charged to this Activity.

CREW SIZE

(As Required)

EQUIPMENT

(As Required)

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

REPORTING NOTES:

- This activity is designed to capture the expenses in the transportation of equipment.
    - When incurred at a County, Interstate, APD, Sign Shop, or Bridge Department for pick-up or delivery of new equipment, the cost is expensed to the delivery shop's appropriate overhead authorization.
    - When incurred at a County, Interstate, APD, Sign Shop, or Bridge Department for the transportation of equipment for repairs, the cost is expensed to the repairing shop's appropriate overhead authorizations.
    - When incurred at a County, Interstate, APD, Sign Shop, or Bridge Department for transportation to or from the field and transportation to or from the District pool, the cost is expensed to the user organization's maintenance overhead/project authorization.
    - When incurred at a County, Interstate, APD, Sign Shop, or Bridge Department for transportation of equipment to or from a project, the cost is expensed to the user organization's project authorization number.
- Equipment utilized by personnel charging to this Activity will also be charged to this Activity.

RECOMMENDED BY: W Kyle Hollings DATE 7/31/09

APPROVED BY: DATE 8-11-09

FORM OM-30 West Virginia Division of Highways ACTIVITY NO. **550**
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **EQUIPMENT SHOP OVERHEAD**

DESCRIPTION / PURPOSE

All overhead expenses incurred in the operation of an equipment shop.

PERFORMANCE CRITERIA

This activity to be used by maintenance personnel for overhead costs associated with the operation of an equipment shop.

CREW SIZE

EQUIPMENT

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE:

REPORTING NOTES:

-- This activity is designed to capture the equipment shop expenses associated with fueling services, equipment washing in support of the shop, shop personnel waiting for parts, shop personnel waiting for work, parts chasing, parts service, shop housekeeping and security, buildings and grounds maintenance of the equipment shop, repair of equipment shop support equipment, equipment shop staff meetings, stand-by time for equipment dedicated for shop use, and supervision/administration of an equipment shop.

-- Equipment assigned to and utilized by the personnel charging to this Activity will also be reported to Activity 550.

RECOMMENDED BY: W Kyle Holdings DATE 12/13/11

APPROVED BY: _____ DATE 12/14/11

FORM OM-30

West Virginia Division of Highways
Maintenance Division

ACTIVITY NO. 568

PERFORMANCE STANDARDS

ACTIVITY NAME: **MISCELLANEOUS EXPENSES EQUIPMENT SHOP**

DESCRIPTION & PURPOSE:

All material and invoice charges associated with the operation of an equipment shop not chargeable to a specific activity.

PERFORMANCE CRITERIA:

CREW SIZE

No Labor Charges

EQUIPMENT

No Equipment Charges

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH'S/Per Unit
Dollars		

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

REPORTING NOTES:

- Charges to this activity are expensed to the organization's maintenance overhead authorization.
- This activity is designed to capture miscellaneous expenses in the equipment shop such as:
  - Miscellaneous inventory expenses
  - Bulk issue of small parts and supplies for shop use
  - Shop utility expenses (heat, light, power, water, etc.)
  - Other miscellaneous shop supplies

RECOMMENDED BY: W Kyle Stallings DATE 8/26/08

APPROVED BY: J. S. Wallace DATE 8/29/08

FORM OM-30

ACTIVITY NO. **801**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **ORGANIZATION OVERHEAD**

DESCRIPTION & PURPOSE:

All administrative and supervisory expenditures relating to the duties for administering the responsibilities of a maintenance organization.

PERFORMANCE CRITERIA:

This activity used by office assistants and supervisory personnel performing administrative type duties and not able to charge a specific maintenance authorization / project.

CREW SIZE

Maint. Superintendent	1
Office Assistants	2
TOTALS:	3

EQUIPMENT

202/204	Pickup Truck	(Opt.)	1
213	Utility Wagon (4 X 4)		1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

REPORTING NOTES:

-- Equipment assigned and utilized by the personnel charging this Activity will also be reported to Activity 801.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Dineault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 803

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **LEAVE TIME**

DESCRIPTION & PURPOSE:

Annual, Sick, Holiday, Compensatory, Jury Duty, and/or Military Leave time for all Annual Plan Maintenance personnel.

PERFORMANCE CRITERIA:

Refer to Administrative Operating Procedures, Volume IX, Chapter 9.

CREW SIZE

EQUIPMENT

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

REPORTING NOTES:

-- Activity 803 to be utilized by Annual Plan Organizations reporting leave.

-- Activity 003 to be utilized by Non-Annual Plan Organizations reporting leave.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Jasper T. Desrouleaux DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. **807**

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **GRIEVANCE - MAINTENANCE WORK FORCE**

DESCRIPTION & PURPOSE:

Those expenses incurred during resolution of grievances.

PERFORMANCE CRITERIA:

This activity to be used by Maintenance personnel during the processing of all grievance related matters.

CREW SIZE

As Required

EQUIPMENT

As Required

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

REPORTING NOTES:

-- Activity 807 to be utilized by Annual Plan Organizations reporting of Grievance-related expenses.

-- Activity 007 to be utilized by Non-Annual Plan Organizations reporting of Grievance-related expenses.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Donaldson DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 809

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **TRAINING**

DESCRIPTION & PURPOSE:

All training expenditures for Annual Plan Maintenance personnel.

PERFORMANCE CRITERIA:

Accomplish training in accordance with directives published by the Central Office or as directed by the District Engineer.

CREW SIZE

As Required

EQUIPMENT

As Required

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

REPORTING NOTES:

-- Activity 809 to be utilized by Annual Plan Organizations reporting of Training-related expenses.

-- Activity 009 to be utilized by Non-Annual Plan Organizations reporting of Training-related expenses.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 811

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **UNPRODUCTIVE EQUIPMENT**

DESCRIPTION & PURPOSE:

The hours a unit of equipment is operational and available for use, but is not used.

PERFORMANCE CRITERIA:

Refer to Volume IV, Chapter 3 of the Administrative Operating Procedures.

CREW SIZE

EQUIPMENT

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Dollars		

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

(Revised 3/95)

REPORTING NOTES:

When there is a bona fide need to have special purpose equipment assigned exclusively to a specific use or function (such as a forklift that is dedicated to a warehouse or storage unit location), and all uses will be to the same accounting distribution, the equipment may be considered as dedicated or committed and reported *chargeable* eight (8) hours per day. Refer to Volume IV, Chapter 3 - Administrative Operating Procedures.

Dedicated equipment that has no operated time for a given day, can be considered and reported as *chargeable* to that project/authorization -- but using Activity 811 (Unproductive Equipment), if the unit of equipment is required at the project site for imminent use. Full days of unproductive equipment must be reported as Non-Participating ("N") on federally funded projects. Refer to Volume IV, Chapter 3 - Administrative Operating Procedures.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 812

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **RENTS AND MISCELLANEOUS EXPENSES** PAGE 1 of 2

DESCRIPTION & PURPOSE:

Those expenses incurred for rents and utilities, broken, lost or stolen hand tools, and office supplies or other miscellaneous expenses not chargeable to a specific activity.

PERFORMANCE CRITERIA:

CREW SIZE

EQUIPMENT

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Dollars		

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

ACTIVITY NO. 812

(Revised 3/95)

REPORTING NOTES:

This Activity designed to capture the expenses associated with rents, utilities and miscellaneous expenses of Annual Plan Organizations.

Utilize Activity 812 to code the applicable purchase and inventory documentation.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 813

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **FLAGGING**

DESCRIPTION & PURPOSE:

Maintenance of traffic using flagger(s), pilot truck or pickup truck with arrow.

PERFORMANCE CRITERIA:

To be performed as directed by the supervisor.

CREW SIZE

Trans. Worker	1

EQUIPMENT

202/204	Pickup Truck	(Opt.)	1
839	Port. Sign Trailer	(Opt.)	1
	Traffic Guide N/C	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE: ▓▓▓▓▓▓

WORK METHODS:

TECHNICAL REFERENCE: *Refer to "Manual on Uniform Traffic Control Devices" and "Traffic Control for Street and Highway Construction and Maintenance Operations", current edition.*

1) Wear proper vest and helmet.

2) Insure appropriate warning signs far enough in advance of station to allow safe vehicle stopping distance.

3) Maintain proper distance between signs, flaggers and worksite.

4) Remove or cover signs/barricades when not needed.

REPORTING NOTES:

-- Portable sign trailers, pilot trucks or pickup truck with directional arrow used to provide traffic control will be charged to this activity.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30

ACTIVITY NO. 814

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **HANDLING OF MATERIALS (NON-SRIC)**

DESCRIPTION & PURPOSE:

Loading, handling, storing, transporting and stockpiling of materials not directly related to a specific activity. (See Reporting Notes.) Also includes inspection, receiving tickets or other incidental work related to contract paving work or stone quarry sampling chargeable to a maintenance organization. Also included under this activity, equipment and operators used to transport fuel to different job sites. This activity will also be used when material is transported to the job site in advance of performing a work activity.

PERFORMANCE CRITERIA:

CREW SIZE

Trans. Workers	2

EQUIPMENT

202/204	Pickup Truck		1
353/357	Endloader		1
371	Dump Truck	(Opt.)	1
763	Fuel Tank	(Opt.)	1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		**1.0**

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
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LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

GENERAL NOTES:

-- Technician used for inspection and receiving tickets.

REPORTING NOTES:

-- Endloader and operator used in the yard loading materials for several activities may be charged to this activity.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Demeault DATE JUN 08 1995

West Virginia Division of Highways
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: **CLEANING OF EQUIPMENT**

DESCRIPTION & PURPOSE:

Steaming, washing, and waxing of all equipment to prevent deterioration and maintain operational status.

MAINTENANCE FORCES ONLY.

PERFORMANCE CRITERIA:

To be performed weekly. For SRIC equipment, this activity to be performed after each storm and at the end of SRIC season.

CREW SIZE

Trans. Workers	2

EQUIPMENT

Sandblasting Unit		(Opt.)	1
Hypressure Jenny	N/C		1

MATERIALS

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: -------- PERFORMANCE:

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 18, WVDOH Maintenance Manual*

GENERAL NOTES:

-- Sandblasting and repainting is to be charged to the appropriate equipment E.D. number.

-- Lubricate chains.

REPORTING NOTES:

-- Activity 815 utilized by Annual Plan Organizations reporting the cleaning of equipment chargeable to the Annual Plan Budget.

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Deneault DATE JUN 08 1995

FORM OM-30 West Virginia Division of Highways ACTIVITY NO. 816
Maintenance Division

PERFORMANCE STANDARDS

ACTIVITY NAME: BUILDING AND GROUNDS

DESCRIPTION & PURPOSE:

Maintenance, housekeeping and security for Division facilities* and grounds. To include janitorial services, security personnel, grounds maintenance -- mowing, cutting weeds, picking up trash and minor repairs of existing facilities.

* Maintenance repairs of Interstate Rest Areas/Welcome Centers to be reported as Activity 309 - Rest Area Maintenance.

PERFORMANCE CRITERIA:

General housekeeping and grounds maintenance to be performed daily as necessary, repairs to facilities to be performed as required and / or directed by the Assistant District Engineer, Maintenance.

CREW SIZE

As Required

EQUIPMENT

As Required

MATERIALS

As Required

ACCOMPLISHMENT

UNIT	DAILY Production	PRODUCTIVITY EH's/Per Unit
Employee Hours		1.0

PERFORMANCE SCHEDULE:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

LEGEND: POSSIBLE PERFORMANCE: ----- PERFORMANCE: ■

WORK METHODS:

TECHNICAL REFERENCE: *Chapter 14, WVDOH Maintenance Manual*

Janitorial Service:	Daily cleaning of facility to maintain a neat appearance and clean working conditions.
Security Personnel:	Maintain a security watch at unfenced facilities to prevent fire, theft, or other losses.
Grounds Maintenance:	Perform general upkeep of facilities including mowing, weed cutting, trash pickup and other general housekeeping activities daily.
Repair:	A) Minor repairs to existing facility.
	B) Major repairs, improvements, or new construction should be funded by an approved Building and Grounds Authorization.

GENERAL NOTES:

-- Hand tools to include rakes, shovels, hammers, etc.

-- Crew size may vary with size of project.

REPORTING NOTES:

RECOMMENDED BY: Julian W. Ware DATE 6/8/95

APPROVED BY: Joseph T. Demeault DATE JUN 08 1995